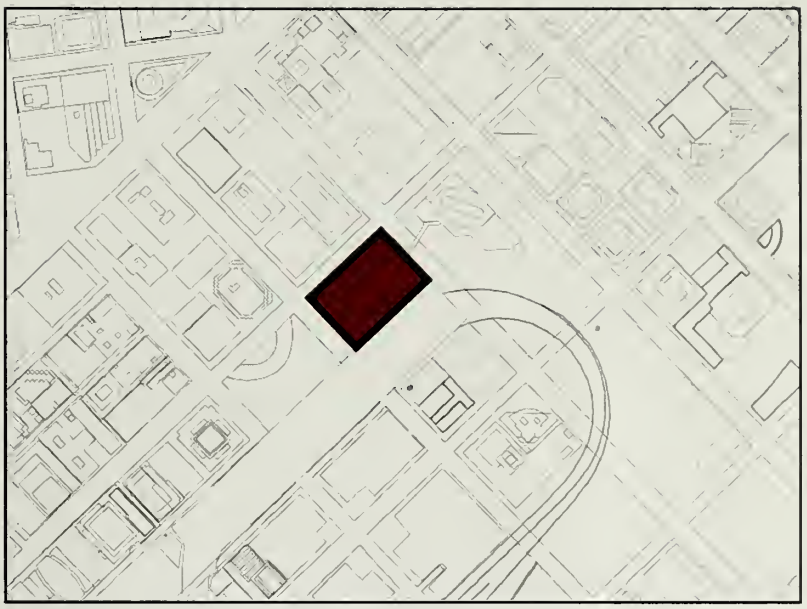

301 MISSION STREET

SAN FRANCISCO PLANNING DEPARTMENT
2001.0792E

STATE CLEARINGHOUSE NO. 2002052062

DRAFT EIR PUBLICATION DATE:
FEBRUARY 15, 2003

DRAFT EIR PUBLIC HEARING DATE:
MARCH 20, 2003

DRAFT EIR PUBLIC COMMENT PERIOD:
FEBRUARY 15 TO APRIL 3, 2003

Written comments should be sent to:
PAUL MALTZER, ENVIRONMENTAL REVIEW OFFICER
SAN FRANCISCO PLANNING DEPARTMENT
1660 MISSION STREET, SUITE 500, SAN FRANCISCO, CA 94103

T ENVIRONMENTAL IMPACT REPORT

PLANNING DEPARTMENT

City and County of San Francisco • 1660 Mission Street, Suite 500 • San Francisco, California • 94103-2414

MAIN NUMBER	DIRECTOR'S OFFICE	ZONING ADMINISTRATOR	PLANNING INFORMATION	COMMISSION CALENDAR
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DATE: February 15, 2003

TO: Distribution List for the 301 Mission Street Project Draft EIR

FROM: Paul Maltzer, Environmental Review Officer

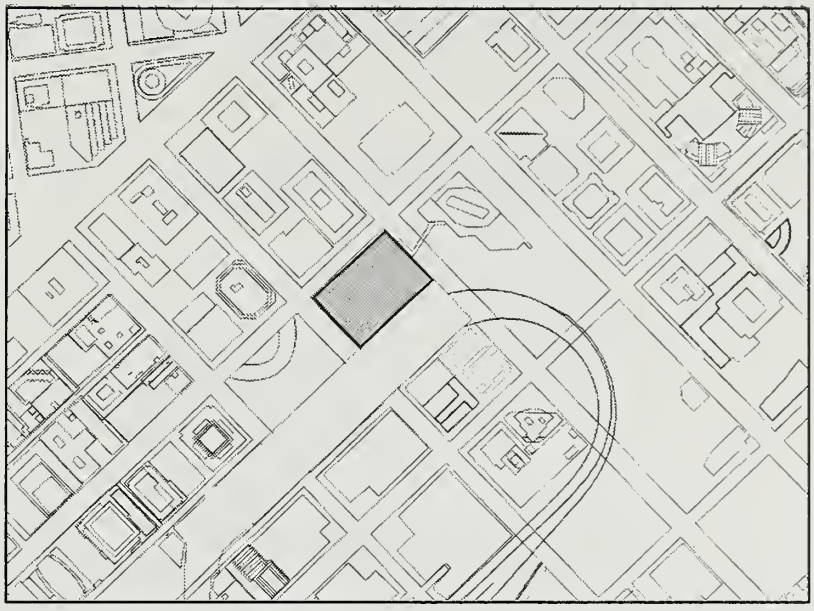
SUBJECT: Request for the Final Environmental Impact Report for the 301 Mission Street Project (Planning Department File No. 2001.0792E)

This is the Draft of the Environmental Impact Report (EIR) for the 301 Mission Street Project. A public hearing will be held on the adequacy and accuracy of this document. After the public hearing, our office will prepare and publish a document titled "Summary of Comments and Responses" that will contain a summary of all relevant comments on this Draft EIR and our responses to those comments. It may also specify changes to this Draft EIR. Public agencies, and members of the public who testify at the hearing on the Draft EIR will automatically receive a copy of the Comments and Responses document, along with notice of the date reserved for certification; others may receive such copies and notice on request or by visiting our office. This Draft EIR together with the Summary of Comments and Responses document will be considered by the Planning Commission in an advertised public meeting and certified as a Final EIR if deemed adequate.

After certification, we will modify the Draft EIR as specified by the Comments and Responses document and print both documents in a single publication called the Final EIR. The Final EIR will add no new information to the combination of these two documents except to reproduce the certification resolution. It will simply provide the information in one document rather than two. Therefore, if you receive a copy of the Comments and Responses document in addition to this copy of the Draft EIR, you will technically have a copy of the Final EIR.

We are aware that many people who receive the Draft EIR and the Summary of Comments and Responses have no interest in receiving virtually the same information after the EIR has been certified. To avoid expending money and paper needlessly, we would like to send copies of the Final EIR to private individuals only if they request them. If you would like a copy of the Final EIR, therefore, please fill out and mail the postcard provided inside the back cover to the Major Environmental Analysis Office of the Planning Department within two weeks after certification of the EIR. Any private party not requesting a Final EIR by that time will not be mailed a copy. Public agencies on the distribution list will automatically receive a copy of the Final EIR.

Thank you for your interest in this project.



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SAN FRANCISCO PLANNING DEPARTMENT
1660 MISSION STREET, SUITE 500, SAN FRANCISCO, CA 94103

301 Mission Street Draft EIR

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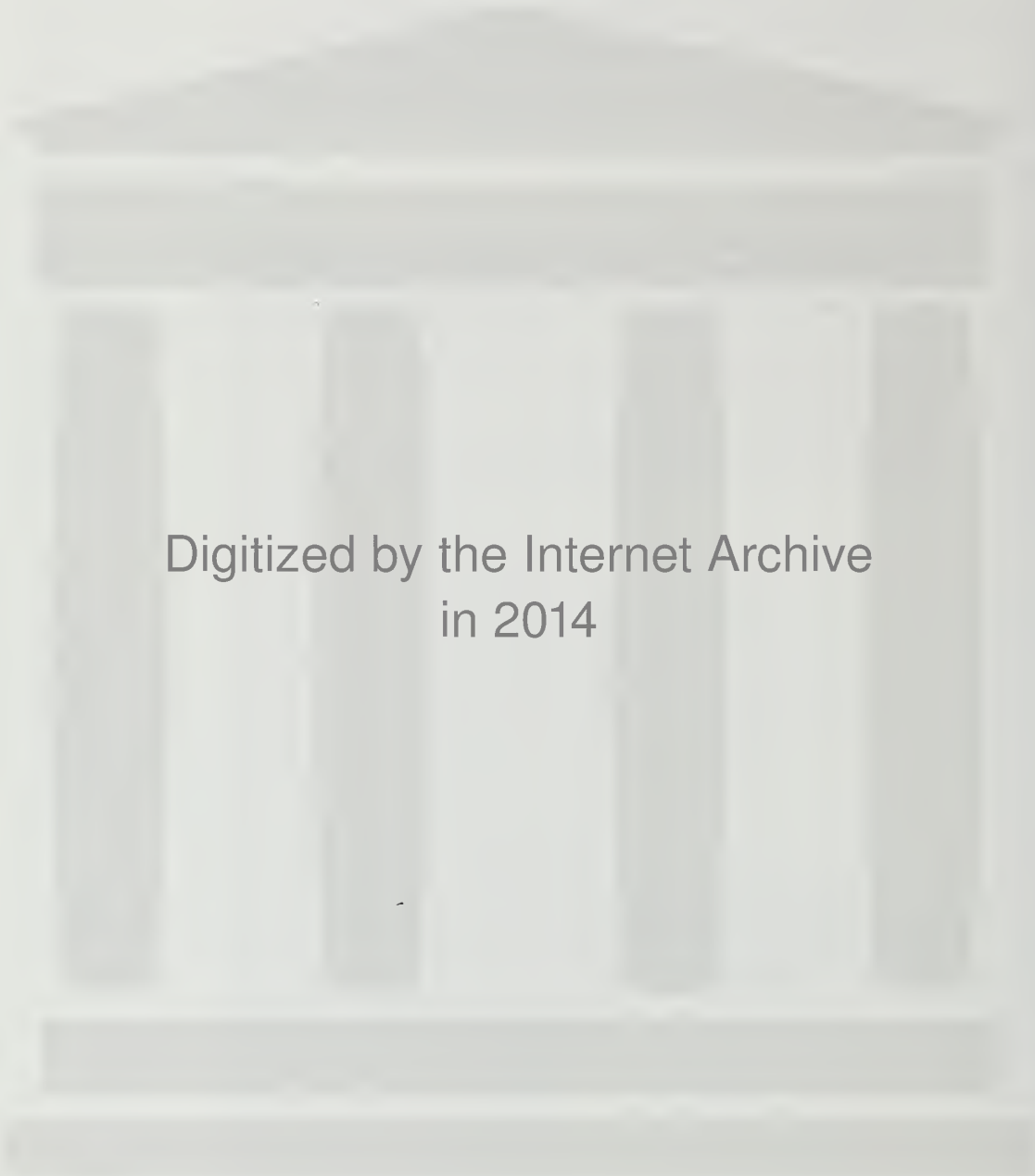


I. SUMMARY

A. PROJECT DESCRIPTION

The project site is on the south side of Mission Street from Fremont to Beale Streets, Assessor's Block 3719, Lots 1 and 17. It is located in San Francisco's downtown core, which includes the expanded Financial District south of Market Street. It is also within the proposed Transbay Redevelopment Project Area. The approximately 50,417-square-foot, level, rectangular project site is occupied by a six-story office building above one basement level at 124 Beale Street; a six-story office building above one basement level at 301 Mission Street; and a two-story industrial building used for offices at 129 Fremont Street. Together, these buildings total about 173,650 gross square feet (gsf), including about 140,000 gsf of office space, 20,200 gsf of retail space, and 13,450 gsf of basement storage. The northwestern portion of the site was formerly occupied by 345 Mission Street, a building containing about 170,150 gsf of space that was damaged in the 1989 Loma Prieta earthquake and subsequently demolished.

The project sponsor proposes to demolish the three existing structures on the project site, and build a mixed-use development, totaling approximately 1,156,500 gsf. The project would contain office space (about 130,560 gsf); ground-floor retail and restaurant and retail space (about 9,400 gsf); publicly accessible atrium space (about 6,400 gsf); ground-floor lobbies (about 4,340 gsf); a 120-suite extended stay hotel (about 164,800 gsf); 320 residential units (totaling about 551,000 gsf); building services (about 33,400 gsf); mechanical space (about 104,850 gsf). The parking area with about 400 underground parking spaces and vehicular circulation would have about 151,750 gsf. There would be three off-street loading docks and four off-street van spaces. The net change in floor area for the site would be an increase of about 982,850 gsf. If the demolished 345 Mission Street were counted (170,150 gsf), the net increase would be about 812,700 gsf.

The project would have three main structural, functional and visual components: a 58-story, 605-foot-tall tower on the western portion of the site; a 43-foot-tall glass-enclosed central atrium; and a nine-story, 125-foot-tall office building component on the eastern portion of the site. The project design would be contemporary in style.

The central atrium and second-floor garden terrace would be open to the public. Separate entrances to the retail and restaurant spaces would be located along Mission, Fremont, and Beale Streets. Entrance to the office lobby would be from a separate entrance on Mission Street or from the central atrium. The residential and hotel lobbies would share an entrance on Mission Street and another entrance from the porte cochere on the southwest portion of the project site.

Vehicular access to the project would be from Fremont Street at the southwest corner of the site or from Beale Street at the southeast corner of the site, via an internal two-way, drive-though running the length of the site along its south side. The porte cochere would serve the restaurant, hotel and residential lobbies and provide off-street passenger loading. A ramp entrance to the parking garage would be located centrally off of the two-way drive and would lead down to about 400 parking spaces on four subsurface levels. Three off-street loading docks at the ground level and four van spaces would be located near the southeast corner of the site.

The project sponsor is Mission Street Development Partners, LLC, and the project architect is Gary Edward Handel & Associates. The development is planned to begin during the first half of 2003, with an expected 36-month to 48-month construction period.

The project would require the following approvals, with acting bodies shown in italics:

- *Planning Commission*, approval under Planning Code Section 309: Downtown Development.
- *Planning Commission*, approval under Planning Code Section 272: Bulk Exceptions in C-3 Districts.
- *Planning Commission*, approval under Planning Code Section 263.9: Height Limits: Special Exceptions for Upper Tower Extensions in S Districts.
- *Planning Commission*, approval under Planning Code Section 223(p): Major Parking Garage Conditional Use Authorization for Parking Exceeding Accessory Amounts as Defined in Section 204.5.
- *Planning Commission*, approval under Planning Code Section 216(i): Conditional Use Authorization for Hotel Use in the C-3-O District.
- *Zoning Administrator* certification of the transfer of development rights (TDRs) under Planning Code Section 128.

- *Department of Public Works* approval of a lot merger.
- *Board of Supervisors* approval of elimination of the midblock pedestrian crosswalk across Fremont Street.

B. MAIN ENVIRONMENTAL EFFECTS

This Environmental Impact Report (EIR) for the 301 Mission Street project focuses on the following topics: transportation, air quality, wind and growth inducement. All other potential environmental effects were found to be less than significant or to be mitigated to a less-than-significant level with mitigation measures to be implemented by the project sponsor. (Please see the Initial Study, included in this document as Appendix A, for analysis of other environmental topics.) In addition, this EIR discusses *General Plan* consistency, land use and zoning, visual quality and urban design, and shadows, all for informational purposes, although these effects were found to be less than significant in the Initial Study.

LAND USE (p. 50)

The project site is located in San Francisco's downtown core, immediately northeast of the San Francisco Transbay Terminal. In the greater project vicinity, the Yerba Buena Center Redevelopment Area is to the west (west of Second Street); the Rincon Hill neighborhood is about one and one-half blocks to the southeast; and the South of Market neighborhood is to the south and southwest. The project site is within the proposed Transbay Redevelopment Project Area, the focus of a number of land use and transportation planning efforts.

The project is in a transition area between the predominantly high-rise office above ground-floor retail use in the downtown commercial district to the north, east and west; and parking, transportation, and lower-rise office and office support uses to the south and southwest.

The proposed residential and hotel uses would be new uses in the immediate project area, similar to such uses in the Rincon Hill and Yerba Buena Center areas and to the south of Howard Street. The proposed mixed-use project would increase the intensity of existing land uses on the project site. The project would be compatible with existing and planned uses in the vicinity, including residential, hotel, retail and office uses existing in the Rincon Hill area and Yerba Buena Center, and hotel and residential uses planned for the Transbay Redevelopment Project Area. The project

would not disrupt or divide an established neighborhood. It would not result in significant effects related to land use.

VISUAL QUALITY/URBAN DESIGN (p. 61)

A general pattern of densely clustered high-rise development in the downtown core, tapering off to low-rise development at its periphery characterizes San Francisco's skyline. A range of building heights in the downtown creates perceived gaps, peaks, dips and variety within this pattern, with taller buildings standing out in profile against the sky. The project site is at a southern edge of the downtown high-rise urban form, where the Transbay Terminal and its ramp system have defined and bounded this edge. Here, building heights tend to drop off abruptly from the Transbay Terminal southward

The visual character of the immediate project vicinity is varied. However, the overall intensity of development in this area, and its arrangement within a regular south of Market street grid, impart a general sense of visual coherence and order in the project vicinity. High-rise buildings in the project vicinity assume a variety forms and employ a variety of exterior treatments although certain common patterns are evident: ground floors are generally transparent and are often arcaded, surface materials are generally nonreflective and light in hue, and exterior treatment is generally vertical in expression. Low-rise early Twentieth Century buildings, including those at the project site are also found in this area and contribute to the varied visual character of the immediate project area. Additional high-rise development is envisioned for the near vicinity, most of which is zoned for the highest densities and height in the City.

The proposed project would result in a visual change because it would demolish three, low-rise buildings dating from the 1900's-1930's to construct a substantially larger three-part development: a 58-story tower on the west and a 12-story structure on the east, connected by a triple-height atrium.

Rather than stepping down from the downtown high-rise core, the proposed building would extend the downtown core southward. While taller than most buildings in the downtown, the proposed building would be within the range of heights that characterizes the downtown and the project vicinity and that is envisioned for the area. The proposed project would not cause the demolition of any identified architectural resources. The proposed project would include features intended to create visual continuity with its surroundings and convey a sense of human scale at

street level. The proposed building would be consistent with area zoning and plans for the proposed Transbay Redevelopment Project Area.

SHADOW AND WIND

Shadow (p. 76)

The 301 Mission Street project would not create net new shadow on any public open space subject to Planning Code Section 295, which prohibits significant new shadow on open space under the jurisdiction of, or to be acquired by, the Recreation and Park Commission. Therefore, project shadow would not have a significant impact.

Project shadow on other spaces was also analyzed. The proposed project would create new shadow on the northern corner of the Transbay Terminal Plaza during early morning hours in the summer months and on Rincon Park about one hour before sunset from February through October. The proposed project would create new midday shadow on the privately owned, publicly accessible open space at Bechtel Plaza in the summer and spring, new midday and early afternoon shadow on the open spaces at 77 Beale Street in fall, winter, and spring, and new afternoon shadow at the One Market South Plaza during summer, fall, and winter months. There would be new, project-related shadow on the privately owned, publicly accessible open space at 201 Mission Street during the afternoon hours of the summer, fall, and winter months. New project-related shadow would be cast on nearby sidewalks throughout the year, especially those along the north and south sidewalks of the first four blocks of Mission Street (between Steuart and Fremont Streets), and along east and west sidewalks of the first two blocks of Beale Street (between Market and Mission Streets).

Wind (p. 87)

Wind tunnel tests were conducted for the project under existing conditions, existing-plus-project conditions, and conditions with the proposed Transbay Redevelopment Project (Transbay cumulative) and the project. As under existing conditions, as discussed below, there would be no exceedances of the 26 mph hazardous wind criteria with the proposed project. Therefore, the project would not have a significant impact.

Under existing conditions, the 11 mph pedestrian comfort criterion is not exceeded; the 7 mph sitting comfort criterion is exceeded at one location. Average wind speeds associated with the proposed project would range between 2 and 12 miles per hour (mph), compared to 4 to 11 mph under existing conditions. Under proposed project conditions, the pedestrian comfort criterion would be newly exceeded at one of 36 ground-level test points. With development of the Transbay cumulative, including the project, wind speeds would range from 4 to 13 mph. The pedestrian comfort criterion would be exceeded at one of 35 ground-level test points. Suggested improvement measures to mitigate the project exceedances include planting street trees along the north sidewalk of Mission Street in front of 50 Fremont Street. The Department of Public Works would be responsible for tree installation.

Under the proposed project conditions, wind speeds would be the strongest across from the Transbay Terminal, in the 400 block of Mission Street (12 mph). Under the Transbay cumulative, the greatest wind speeds would be at the southwest corner of the intersection of Mission and Fremont Streets (13 mph). As with the project, there would be no hazardous wind conditions for the Transbay cumulative scenario.

TRANSPORTATION (p. 93)

The transportation system is most heavily used during the p.m. peak period (generally 4:00 to 6:00 p.m.). Therefore, this EIR analyzes transportation impacts during the peak hour within the p.m. peak period.

The proposed project would generate approximately 876 net new p.m. peak hour trips. About 179 net new vehicle trips would be generated during the weekday p.m. peak hour, of which about 116 would be to and from locations in San Francisco, and about 63 to and from locations around the Bay Area and outside the Bay Area region. The 179 vehicle trips would cause the Level of Service (LOS) at one intersection to change from LOS B to LOS C; all six intersections studied would operate at LOS D or better, that is, at acceptable conditions. Therefore, the proposed project would not cause significant traffic impacts.

The project site is well served by public transit, with 19 Muni bus lines and 5 light rail lines within an approximately one-fourth-mile radius (about two blocks) of the project site. The project site is across from the Transbay Terminal and within walking distance of the Ferry Building, both regional transit hubs. The proposed project would generate about 62 p.m. peak

inbound transit trips and about 130 p.m. peak outbound trips. With the additional outbound transit trips, Muni and regional transit carriers would continue to operate within their respective capacity utilization and load factor standards. New inbound transit trips generated to the project would not substantially affect transit service in the inbound direction. Vehicles entering and exiting project driveways would not conflict with current bus operations at the Transbay Terminal, but could occasionally be temporarily blocked by Golden Gate Transit buses if the buses extend beyond the bus stop. The project would not cause a significant impact on transit service.

The project would provide about 400 parking spaces, with 320 spaces dedicated to residential parking. Pursuant to Planning Code Section 161 (c), the project is required to provide 80 off-street parking spaces for the proposed residential use, based on the requirement for one space for every four units, in the C-3 Districts. Under Planning Code Section 204.5, accessory parking for the residential use would be allowed up to 150 percent of the required amount, for a total of 120 spaces. The project would thus provide 200 more spaces than allowed by Planning Code Sections 161 and 204.5 for residential use. With the project there would be one space per unit rather than one space per four units. No parking is required for commercial uses in the C-3 Districts. Under Section 204.5, the project would provide accessory parking for the non-residential areas in the amount of 7 percent of the gross square feet, or 80 spaces. Since the project would provide more residential parking than allowable under Section 204.5(c), the project sponsor has applied for Conditional Use authorization for parking in excess of 150 percent of required residential parking.

The project would generate an overall parking demand for about 642 spaces: 424 spaces for residences; 41 spaces for overnight hotel guests; 134 long-term parking spaces for hotel/office/retail/restaurant employees; and 43 short-term parking spaces for office/retail/ restaurant visitors. The midday parking demand would be about 551 spaces (about 339 spaces for residential parking and 212 spaces for the commercial uses including the hotel). The 212-space midday demand for commercial parking would not be accommodated within the 80 commercial spaces in the project parking garage. The midday demand for residential parking would exceed the available supply dedicated to residences by approximately 19 to 104 parking spaces. Therefore the residential and commercial parking shortfall, about 151 to 236 spaces, would need to be accommodated in on-street spaces, in other public off-street parking facilities. There would be sufficient available parking supply in the study area to accommodate the project's parking demand. Some building users would be likely to park further from their

destination, or change travel modes. Given the high transit accessibility at the project site, some building users might switch from drive to transit, and be dispersed over the many transit lines in the near vicinity.

Evening parking demand would consist of about 424 residential parking spaces and 41 overnight hotel spaces. The 41-space hotel parking demand could be accommodated in the project garage. The residential parking demand could not be entirely accommodated by the residential parking supply of 320 spaces, resulting in a shortfall of about 104 spaces. Residential parking demand not accommodated at the project site could be accommodated at nearby off-street facilities, resulting in an increase of the existing 17 percent area-wide overnight parking occupancy rate, but not to levels that would make spaces difficult to find or that would result in significant secondary parking impacts.

The project would add approximately 650 net new pedestrian trips (458 net new walk/other trips and 195 net new transit trips) to the surrounding streets during the weekday p.m. peak hour. With the project, the sidewalks on Fremont Street at the Mission Street corner would be widened from 15 feet to about 24 feet. This area is the most constrained pedestrian location along the Fremont Street frontage of the project site under existing conditions; widening the sidewalk would provide additional walking space, increasing the effective sidewalk width. With the proposed project, all sidewalk study locations would operate at acceptable levels of LOS D or better, including the Fremont Street location, which currently operates at LOS E. Thus, the project would improve pedestrian conditions on Fremont Street, along the project frontage.

The mid-block pedestrian crosswalk across Fremont Street would need to be eliminated to allow for the project driveway curb cut. Pedestrians would need to use the crosswalks at the intersection of Fremont and Mission Streets instead. The addition of pedestrians currently using the mid-block crosswalk would not substantially affect the operations of the crosswalks at the Fremont and Mission Street intersection. The new Transbay Terminal project proposes a relocated traffic signal and pedestrian crosswalk south of the existing crosswalk location, near Natoma Street. Therefore, the crosswalk could be relocated to this new location by the Transbay project.

The project would provide seven off-street loading spaces (three full-sized spaces and four van spaces), meeting the Planning Code requirement for five full-sized spaces in Section 152. The loading spaces would be in a ground-floor loading bay accessed from Fremont Street and the

internal drive-through, with egress to Beale Street and in the first subsurface level of the garage adjacent to the service elevator. The proposed loading spaces would accommodate the estimated peak loading hour demand of five loading spaces. For passenger load/unloading, an off-street porte cochere, with space for up to four vehicles, would be provided adjacent to the extended-stay hotel and residential lobby, with access from both Fremont and Beale Streets.

Cumulative transportation impacts were assessed by considering the project's contribution to reasonably foreseeable growth through the year 2020 based on the San Francisco County Transportation Authority (SFCTA) countywide travel demand forecasting model. Growth from the proposed project would fall within forecasts from the SFCTA model. A wider area was assessed for cumulative conditions than for the Existing-plus-Project scenario, to account for growth in the Transbay Redevelopment study area. Sixteen intersections in this wider area would operate at LOS E or F with future growth. Of these, the project would make a substantial contribution to growth at three of the sixteen. However, for the traffic movements that determine overall performance at these intersections, the project would not make a considerable contribution (ranging from 1 to 3 percent), and the project would not cause a significant cumulative traffic impact.

Under 2020 Cumulative conditions, three of the four Muni screenlines would operate at less than capacity. The Southeast screenline would operate at capacity. Regional transit operators would continue to operate at less than their load factor standards, except BART to the South Bay, which would operate at 139 percent of capacity, slightly higher than the standard of 135 percent. The project would contribute less than 1.0 percent to cumulative Muni and regional transit ridership and, alone, would not substantially affect the peak hour capacity utilization of any transit provider.

AIR QUALITY (p. 125)

The proposed project would contribute to local and regional air emissions primarily from project-generated traffic. Project-generated vehicle trips would emit about 30.7 pounds per day of reactive organic gases (ROG), 23.5 pounds per day of nitrogen oxides (NO_x), and 8.3 pounds per day of inhalable fine particulates (PM_{10}). None of these emissions levels would reach the 80-pounds-per-day threshold established by the Bay Area Air Quality Management District (BAAQMD); therefore, the project would not have significant regional air quality impacts.

Project-related carbon monoxide (CO) emissions would not exceed the 550 pounds-per-day screening criterion established by the BAAQMD to determine whether a quantitative localized CO analysis should be prepared. Intersections near the project site would operate at LOS B and C under Existing-plus-Project conditions, and the project would not contribute more than 10 percent of future traffic volumes to the study intersections. Therefore, the project would not exceed the BAAQMD screening criteria calling for a localized CO analysis and project traffic would not generate emissions exceeding state CO standards. As federal standards are less stringent than state standards, the project would not exceed federal CO standards. The project would not cause significant local air quality impacts.

Regarding cumulative effects, all regional emission standards are expected to be met with a wide margin by 2020: ROG, NO_x, and PM_{10} emissions each would be no more than 15.2 pounds per day, compared with a threshold of 80 pounds per day. Therefore, the project would have less-than-significant contributions to cumulative regional air quality effects, based on BAAQMD significance thresholds.

GROWTH INDUCEMENT (p. 131)

Based on employment density factors, the proposed development at 301 Mission Street is estimated to employ about 605 people. The existing commercial space that would be demolished employs approximately 570 people. This would be a net increase of about 35 employees on the site with the project. The net increase in employment would be about 0.006 percent of total employment projected for San Francisco in the year 2020, and about 0.04 percent of employment growth projected from 2000-2020. The total increase in employment would be about 0.08 percent of total projected employment for San Francisco, and about 0.6 percent of the projected employment growth, that is, less than 1 percent.

The residential portion of the proposed project would be estimated to accommodate approximately 575 people. The project would contribute about 320 units to the City's housing stock, helping create some of the 20,372 additional dwelling units projected to be needed by 2006 in the ABAG *Regional Housing Needs Determination*. The project would not create substantial demand for new housing.

The project would be an infill project consistent with the area's uses permitted in the C-3-O zoning. It would be built in an urban area, and would not require new infrastructure to serve the project.

C. MITIGATION MEASURES

Mitigation measures have been identified in this EIR and the Initial Study that would reduce or eliminate potential significant environmental impacts of the proposed project. Mitigation measures for noise, construction air quality, and archaeological resources have been included in the project and were listed in the Initial Study. The project would not cause significant project-specific traffic impacts or contribute substantially to cumulative traffic impacts. Because there would be significant cumulative traffic impacts in the future, a mitigation measure that would help to reduce traffic impacts has been identified but is not included in the project; this measure would not reduce cumulative impacts to less-than-significant levels. Improvement measures that would reduce impacts determined to be less than significant are also identified.

MEASURES AGREED TO BY PROJECT SPONSOR

Mitigation measures included in the proposed project to mitigate potentially significant environmental effects are listed below.

Noise

1. It is likely that pile driving would be required for this project. The project sponsor shall require construction contractors to predrill holes to the maximum depth feasible based on soil conditions. The project sponsor shall also require that contractors schedule pile driving activity for times of the day that would be consistent with the San Francisco Noise Ordinance, to disturb the fewest people. Contractors shall be required to use construction equipment with state-of-the-art noise shielding and muffling devices.

Construction Air Quality

2. To reduce particulate emissions, the project sponsor shall require the contractor(s) to spray the site with water during demolition, excavation, and construction activities; spray unpaved construction areas with water at least twice per day; cover stockpiles of soil, sand, and other material; cover trucks hauling debris, soils, sand or other such material; and sweep surrounding streets during demolition, excavation, and construction at least once per day. Ordinance 175-91, passed by the Board of Supervisors on May 6, 1991,

requires that non-potable water be used for dust control activities. Therefore, the project sponsor shall require that contractor(s) obtain reclaimed water from the Clean Water Program for this purpose. The project sponsor shall require the project contractor(s) to maintain and operate construction equipment so as to minimize exhaust emissions of particulates and other pollutants, by such means as a prohibition on idling motors when equipment is not in use or when trucks are waiting in queues, and implementation of specific maintenance programs to reduce emissions for equipment that would be in frequent use for much of the construction period.

Archaeological Resources

3. Based on a reasonable presumption that archaeological resources may be present within the project site, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed project on buried or submerged historical resources. The project sponsor shall retain the services of a qualified archaeological consultant having expertise in California prehistoric and urban historical archaeology. The archaeological consultant shall undertake an archaeological testing program as specified herein. In addition, the consultant shall be available to conduct an archaeological monitoring and/or data recovery program if required pursuant to this measure. The archaeological consultant's work shall be conducted in accordance with this measure at the direction of the Environmental Review Officer (ERO). All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the ERO for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO. Archaeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less-than-significant level potential effects on a significant archaeological resource as defined in CEQA Guidelines Sect. 15064.5 (a)(c).

Archaeological Testing Program. The archaeological consultant shall prepare and submit to the ERO for review and approval an archaeological testing plan (ATP). The archaeological testing program shall be conducted in accordance with the approved ATP. The ATP shall identify the property types of the expected archaeological resource(s) that potentially could be adversely affected by the proposed project, the testing method to be used, and the locations recommended for testing. The purpose of the archaeological testing program will be to determine to the extent possible the presence or absence of archaeological resources and to identify and to evaluate whether any archaeological resource encountered on the site constitutes an historical resource under CEQA.

At the completion of the archaeological testing program, the archaeological consultant shall submit a written report of the findings to the ERO. If based on the archaeological testing program the archaeological consultant finds that significant archaeological

resources may be present, the ERO in consultation with the archaeological consultant shall determine if additional measures are warranted. Additional measures that may be undertaken include additional archaeological testing, archaeological monitoring, and/or an archaeological data recovery program. If the ERO determines that a significant archaeological resource is present and that the resource could be adversely affected by the proposed project, at the discretion of the project sponsor either:

A) The proposed project shall be re-designed so as to avoid any adverse effect on the significant archaeological resource; or

B) A data recovery program shall be implemented, unless the ERO determines that the archaeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible.

Archaeological Monitoring Program. If the ERO in consultation with the archaeological consultant determines that an archaeological monitoring program shall be implemented the archaeological monitoring program shall minimally include the following provisions:

- The archaeological consultant, project sponsor, and ERO shall meet and consult on the scope of the AMP reasonably prior to any project-related soils disturbing activities commencing. The ERO in consultation with the archaeological consultant shall determine what project activities shall be archeologically monitored. In most cases, any soils- disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archaeological monitoring because of the risk these activities pose to potential archaeological resources and to their depositional context;

- The archaeological consultant shall advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of the appropriate protocol in the event of apparent discovery of an archaeological resource;

- The archaeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archaeological consultant and the ERO until the ERO has, in consultation with project archaeological consultant, determined that project construction activities could have no effects on significant archaeological deposits;

- The archaeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis;

- If an intact archaeological deposit is encountered, all soils-disturbing activities in the vicinity of the deposit shall cease. The archaeological monitor shall be

empowered to temporarily redirect demolition/excavation/pile driving/ construction activities and equipment until the deposit is evaluated. If in the case of pile driving activity (foundation, shoring, etc.), the archaeological monitor has cause to believe that the pile driving activity may affect an archaeological resource, the pile driving activity shall be terminated until an appropriate evaluation of the resource has been made in consultation with the ERO. The archaeological consultant shall immediately notify the ERO of the encountered archaeological deposit. The archaeological consultant shall make a reasonable effort to assess the identity, integrity, and significance of the encountered archaeological deposit, and present the findings of this assessment to the ERO.

Whether or not significant archaeological resources are encountered, the archaeological consultant shall submit a written report of the findings of the monitoring program to the ERO.

Archaeological Data Recovery Program. The archaeological data recovery program shall be conducted in accord with an archaeological data recovery plan (ADRP). The archaeological consultant, project sponsor, and ERO shall meet and consult on the scope of the ADRP prior to preparation of a draft ADRP. The archaeological consultant shall submit a draft ADRP to the ERO. The ADRP shall identify how the proposed data recovery program will preserve the significant information the archaeological resource is expected to contain. That is, the ADRP will identify what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practical.

The scope of the ADRP shall include the following elements:

- *Field Methods and Procedures.* Descriptions of proposed field strategies, procedures, and operations.
- *Cataloguing and Laboratory Analysis.* Description of selected cataloguing system and artifact analysis procedures.
- *Discard and Deaccession Policy.* Description of and rationale for field and post-field discard and deaccession policies.
- *Interpretive Program.* Consideration of an on-site/off-site public interpretive program during the course of the archaeological data recovery program.

- *Security Measures.* Recommended security measures to protect the archaeological resource from vandalism, looting, and non-intentionally damaging activities.

- *Final Report.* Description of proposed report format and distribution of results.

- *Curation.* Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.

Human Remains and Associated or Unassociated Funerary Objects. The treatment of human remains and of associated or unassociated funerary objects discovered during any soils disturbing activity shall comply with applicable State and Federal laws. This shall include immediate notification of the Coroner of the City and County of San Francisco and in the event of the Coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission (NAHC) who shall appoint a Most Likely Descendant (MLD) (Pub. Res. Code Sec. 5097.98). The archaeological consultant, project sponsor, and MLD shall make all reasonable efforts to develop an agreement for the treatment of, with appropriate dignity, human remains and associated or unassociated funerary objects (CEQA Guidelines. Sec. 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects.

Final Archaeological Resources Report. The archaeological consultant shall submit a Draft Final Archaeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archaeological resource and describes the archaeological and historical research methods employed in the archaeological testing/monitoring/data recovery program(s) undertaken. Information that may put at risk any archaeological resource shall be provided in a separate removable insert within the final report.

Once approved by the ERO, copies of the FARR shall be distributed as follows: California Archaeological Site Survey Northwest Information Center (NWIC) shall receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Major Environmental Analysis division of the Planning Department shall receive three copies of the FARR along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest in or the high interpretive value of the resource, the ERO may require a different final report content, format, and distribution than that presented above.

As discussed by topic above, and with inclusion of these mitigation measures, the project itself would not have a significant project-specific or cumulative impact on the environment.

MITIGATION MEASURE THAT COULD BE REQUIRED AS CONDITION OF APPROVAL

Traffic generated by the project would not result in significant project-specific impacts and would not contribute significantly to cumulative traffic impacts. As a result of the substantial increase in traffic volumes anticipated to occur in the area east of Second Street by 2020 from cumulative growth in the City and the region, sixteen intersections would degrade from LOS C to LOS E or F during the weekday p.m. peak hour. Traffic generated by the proposed project alone would not contribute considerably to cumulative traffic conditions at these intersections. However, to help improve future traffic conditions at those intersections, the following mitigation measure could be required by the Planning Commission:

4. The project sponsor shall contribute to the Department of Parking and Traffic's new Integrated Transportation Management System (ITMS). This program is a citywide real-time electronic transportation management system that is planned to include installation of various intelligent transportation system infrastructure components to improve traffic circulation in the City.

Implementation of the ITMS program is intended to improve overall traffic conditions and to reduce traffic congestion in the City, including the South of Market area in which the project is located. By improving overall traffic conditions and reducing traffic congestion, the ITMS would facilitate circulation in the project area. It cannot be said with certainty, however, that implementation of the ITMS program would be sufficient to reduce 2020 cumulative impacts to less-than-significant levels.

IMPROVEMENT MEASURES IDENTIFIED BY THIS REPORT

Improvement measures are actions or changes that would reduce effects of the project that were found through the environmental analysis to have less-than-significant impacts. Improvement measures identified in the EIR may be required by decision makers as conditions of project approval. The following improvement measures are identified in the EIR:

Wind

Although no significant wind impacts due to the project were found during the wind study analysis, the project would cause one new exceedance of the pedestrian comfort criterion and one new exceedance of the sitting comfort criterion. The wind analysis recommends the installation of street trees along the north side of the 400 block on Mission Street to reduce the 1 mph exceedance of the pedestrian comfort criterion there. Implementation of this measure would be the responsibility of the Department of Public Works.

Parking

The shortfall of about 104 to 236 parking spaces is not considered a significant impact in the City, particularly in the downtown core where commuter parking is discouraged. The project site is well-served by transit, with local and regional transit services provided on Mission and Market Streets and at the Transbay Transit Terminal, a regional transit hub across Fremont Street. Sufficient parking is available in nearby off-site garages to accommodate the project shortfall. While the project impact would not be significant, improvement measures could be implemented to further reduce the parking demand. Identified improvement measures could include one or more of the following: encourage office and retail employees to use alternative means of travel; provide reduced rate or free transit passes to employees; provide on-site transit information, such as schedules, fare guides, and maps, and provide transit maps and directions for transit at the project's web site; and coordinate with City CarShare to promote the use of car-sharing by residents.

Traffic

The following improvement measure could further reduce non-significant project impacts on circulation. Project sponsor would request the Department of Parking and Traffic to install a flashing red signal across from the project driveway on Fremont Street (at project sponsor's expense), with appropriate signage, advising motorists exiting the driveway to yield to oncoming traffic, including buses exiting the Transbay loop.

D. ALTERNATIVES

The Alternatives chapter identifies alternatives to the proposed project and discusses their environmental effects in comparison to those from the proposed project. The alternatives discussed are the No Project Alternative; No Allowable Exceptions to the Planning Code; No Allowable Height Extension; Mixed Use Development With More Office and Less Residential Space; and two alternatives evaluating joint use of the site with the proposed Transbay Terminal and Caltrain Downtown Extension. One of the two alternatives would accommodate the Transbay Terminal and Second-to-Main-Street Caltrain Extension Alignment; and the other would accommodate the Second-to-Mission-Street Caltrain Extension Alignment.

ALTERNATIVE A: NO PROJECT

The No Project Alternative would retain the existing three buildings on the site. New residential or commercial development would not be expected to occur on those lots. The site would continue to be used for office and retail, as under existing conditions. Impacts associated with the proposed project would not occur. Land use, visual quality, transportation, air quality, and shadow and wind conditions would not change.

This alternative would not preclude future proposals for development of the vacant northwest portion of the site at 345 Mission Street or the entire site. The vacant northwest portion of the site at 345 Mission Street could be developed with uses allowable as principal or conditional uses in the C-3-O District. As no proposal for developing the vacant portion of the site is at hand, specific detail about the characteristics of such a project would be speculative. If the vacant portion of the site were not developed for some period of time, it would remain a fenced, vacant lot.

ALTERNATIVE B: NO ALLOWABLE EXCEPTIONS TO THE PLANNING CODE

This Alternative would contain substantially the same mix of uses, in the same amounts, as the proposed project. Pedestrian and vehicular access would also function in essentially the same manner as the proposed project. In this alternative the tower would be 550 feet tall and would conform to the applicable "S" bulk limits. The result would be a tiered tower form, decreasing in bulk with increased height. It would be bulkier at the lower-tower level and more slender at the top, and would have a defined three-part base, middle and top. There would be 200 subsurface

parking spaces, conforming to accessory parking allowed in Planning Code Section 204.5, rather than 400 spaces.

Alternative B's impacts with respect to land use, traffic, transit, pedestrians, loading and air quality would be the same as those of the proposed project. It would differ from the proposed project primarily with respect to visual quality, wind and shadow effects, and parking. Alternative B would be about 55 feet shorter than the proposed project, and it would be bulkier than the proposed project at the lower levels. The alternative's stepped silhouette would be less vertical in emphasis than the proposed project tower. Alternative B would create less shadow than the proposed project on sidewalks further away from the project site and more shadow on the sidewalks in proximity to the project site. The public and publicly accessible open space shaded under proposed project conditions would be expected to be similarly shaded with Alternative B. Like the proposed project, this alternative would not be expected to cause hazardous wind conditions and would likely cause ground-level wind speeds similar to those with the proposed project. As noted above, the project would provide parking as allowed by the Code (without allowable exceptions) of 150 percent of required residential parking and 7 percent of FAR for commercial, a total of 200 spaces. A parking shortfall of about 355 to 445 spaces compared to 104 to 236 with the proposed project could cause off-street parking occupancy to increase to over 90 percent. Drivers may park farther away from the project site or switch to other modes of travel. As with the project, no secondary impacts from the parking shortfall would be expected.

ALTERNATIVE C: NO ALLOWABLE HEIGHT EXTENSION

Alternative C would be 550 feet tall compared to 605 feet with the project to conform to the maximum height limit with no allowable upper-tower height extension; it would have four fewer floors, 50 fewer residential units, and 50 fewer residential parking spaces. It would otherwise be identical to the proposed project with respect to its dimensions, design and program. Since its upper-tower floor plate measurements would be identical to those of the proposed project, it would require the same exceptions from upper-tower bulk limits as would the proposed project.

Alternative C would be a mixed use development similar to the proposed project. It would be similar in appearance except that its proportions would be somewhat less slender than those of the proposed project because it would be four floors shorter. When viewed from the Bay Bridge looking west, the top of the Alternative C building would appear to closely align with that of 50 Fremont Street, with the project in the foreground. The total length of shadow created by the

tower would be less in proportion to its reduced height under Alterative C. Public and publicly accessible open space shaded under proposed project conditions would be expected to be similarly shaded under Alternative C conditions. Wind speeds would not be expected to increase or decrease substantially due to the decreased tower height. Transportation and air quality impacts under this alternative would be similar to the proposed project's, but somewhat reduced. Like the project, Alternative C would not cause significant transportation or air quality impacts.

ALTERNATIVE D: MIXED USE DEVELOPMENT WITH MORE OFFICE AND LESS RESIDENTIAL SPACE

Alternative D would be a mixed use development with the same total floor area as the proposed project but with a different allocation of uses. There would be more office space (a total of about 300,000 gsf) with this alternative, about 170,000 gsf more than the proposed project. The alternative would have fewer residential units (a total of about 183 units), about 137 fewer units than the proposed project. Alternative D would include the same amount of hotel, retail and ancillary uses as the proposed project, and would require about 3,500 square feet more public open space than the proposed project, due to the greater amount of C-3-O office space and related Planning Code requirements. Its ground floor would function in the same manner as the proposed project with a ground floor plan that is similar in layout. The exterior dimensions of the project would be the same as the proposed project except that Alternative D would include a twelve-story office building component (three stories more than the proposed nine-story office component).

This alternative's greater office space and lesser amount of residential area would be consistent with the existing general land use character in the downtown area and with adjacent office buildings to the east and north of the project site, although some newer developments in the greater project vicinity are residential or contain a residential components. Because the building envelope of the Alternative D tower would be basically the same as that of the proposed project, this alternative would result in visual and urban design effects similar to those of the proposed project, except that the office component would be taller than the office component in the project.

Alternative D would create slightly more shadows on the sidewalks in the vicinity of the project site due to its taller office building component. The public and publicly accessible open space shaded under proposed project conditions would be expected to be similarly shaded under Alternative D conditions as they would under the proposed project. Alterative D would likely cause ground-level wind speeds similar to those with the proposed project.

Although the increased office space and decreased residential units would add to p.m. peak hour vehicle trips and delays at local intersections, levels of service would remain the same as the proposed project and would not cause a significant traffic impact. The increase in vehicle trips would not be sufficient to cause substantial changes in traffic-related air emissions. Parking and loading demand would also increase under Alternative D. One additional loading dock would be required with the additional office space in this alternative. Off-street parking occupancy in the study area would increase to about 90 percent, compared to 86 percent with the project. As with the proposed project, Alternative D would not cause significant air quality impacts.

ALTERNATIVE E: JOINT USE OF SITE WITH PROPOSED TRANSBAY TERMINAL AND CALTRAIN DOWNTOWN EXTENSION

The City and County of San Francisco, the Peninsula Corridor Joint Powers Board (JPB), and the Federal Transit Administration are evaluating a new multi-modal Transbay Terminal on the site of the present-day Transbay Terminal and extension of Caltrain commuter rail service from the Fourth and Townsend Streets terminus to a new underground terminus beneath the new Transbay Terminal. Two alignments are under consideration for the Caltrain Downtown Extension. Both alignments would use some of the 301 Mission project site. To explore the feasibility of joint use of the project site by the 301 Mission Street project and the Transbay Terminal / Caltrain Downtown Extension project, Caltrain engineers provided the project structural engineers with information about the land area on the 301 Mission Street site that conceptually would be required for each of the two alignments. The project engineers and architect then explored alternative project designs that could accommodate each alignment. Alternative E-1 evaluates the Second-to-Main Street alignment. Alternative E-2 evaluates the Second-to-Mission Street Alignment.

Alternative E-1 to Accommodate Conceptual Plan for Transbay Terminal and Second-to-Main-Street Caltrain Extension Alignment

The proposed Caltrain Downtown Extension would extend Caltrain from its present terminus at Fourth and Townsend Streets to an underground terminal under the proposed new Transbay Transit Terminal adjacent to the project site. The Second-to-Main alternative alignment for the Caltrain extension includes six tracks and three platforms under the proposed Terminal along its east-west axis, underneath the project block at the 301 Mission property's south boundary. Preliminary plans indicate that the outside face of the proposed tunnel wall would need to encroach over the property line of the 301 Mission Street site. Alternative E-1 would involve

acquisition of a small strip along the southerly portion of the project site to accommodate the proposed Transbay Terminal access tunnel. To avoid transfer of lateral pressure and accommodate anticipated load, the Caltrain tunnel would need to be isolated from the Alternative E-1 structure by the construction of an 8- to 12-inch filled isolation joint between the two buildings. A load bearing wall of Alternative E-1 would cantilever over the newly positioned foundation wall, requiring installation of a continuous corbel ("cap beam") along the top of the wall, and allowing the 301 Mission Street structure to be built in advance of the Caltrain terminal.

Overall, accommodation of the Second-to-Main Caltrain extension alignment would result in a loss of about 4,000 gsf of project space over four subsurface levels, eliminating 40 parking spaces, 500 sq. ft. of storage, and 500 sq. ft. of mechanical space. Above grade, the development program and design of Alternative E-1 would be identical to the proposed 301 Mission Street project.

The effects of Alternative E-1 on land use, shadow, wind, urban design, air quality and growth inducement would be the same as those of the proposed project. The loss of 40 residential parking spaces would increase the midday parking shortfall from 151-236 to 191-276 spaces. This increased shortfall could be accommodated in off-street parking facilities, as with the proposed project. All other transportation effects would be the same as with the proposed project.

Alternative E-2 to Accommodate Transbay Terminal and Second-to-Mission-Street Caltrain Extension Alignment

The Second-to-Mission-Street Caltrain Extension alignment would also extend Caltrain from Fourth and Townsend Streets. This alignment would split at Essex and Natoma Streets to the southwest of the project site before entering the basement of the Transbay Terminal where two of the tracks would bear north and pass on a diagonal directly under the 301 Mission site in a tunnel with a floor 64 feet below grade. Along with train tracks and platforms there would also be underground pedestrian access, by way of a series of escalators, to the platforms and station area to be located under the proposed new Transbay Terminal adjacent to the project site. The underground portion of the 301 Mission site needed for the rail alignment would be acquired for the Transbay project, and 301 Mission Street would be developed on the remaining developable portions of the site. This would require substantial revisions to both the below-ground facilities and the residential tower, with increased structural support for the office tower and changes to the foundation piles to avoid conflict with the train tracks and platform.

With this alternative, parking would be reduced by 60 percent, with the 157 remaining spaces dedicated to residential use. Loading facilities, as well as support and mechanical functions would need to be relocated. This would result in substantial changes to the overall structural plan of the project. The office component would increase to 15 floors; the residential component would be reduced to 256 units (compared to 320 units with the project). These changes would necessitate an above-ground connection between the office and the residential tower that would be visible above the atrium space. Hotel and retail space with this alternative would be approximately the same as with the proposed project.

Alternative E-2 would have about 79 percent more office floor area, and about 20 percent fewer residential units than would the proposed project, making it somewhat more similar to the existing predominant land use character in the area. Due to the extent of exterior changes needed to accommodate this Caltrain alignment, the alternative would be less aesthetically pleasing from an urban design viewpoint than would the project. The additional floors would result in a change in the scale and reduce the transparency of the proposed atrium, where a new service corridor connecting the office and hotel structures would cross the space.

The office component in Alternative E-2 would be 84 feet taller than the proposed project, creating proportionally more shadow on the sidewalks in the project area, particularly along the 200 to 300 blocks of Mission Street. Alternative E-2 would have similar effects on ground-level winds as the proposed project. It would result in slightly fewer vehicle trips due to the reduction in residential units. There would be a slight decrease in parking demand (about 30 spaces) from the project. Since this alternative would provide 157 (93 more than required) spaces, the parking shortfall with respect to demand would be about 449 to 517 spaces, about 275 to 292 more than with the proposed project.

E. AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

Based on responses to the Notice of Preparation for this EIR, the primary areas of controversy associated with the proposed 301 Mission Street project concern: (1) potential conflict with implementation of the Transbay Terminal and Caltrain Extension project; (2) potential impacts to transit service on adjacent streets; and (3) the amount of parking proposed. Issues to be resolved include: (1) the appropriate amount of parking for this primarily residential project in light of parking demand and parking requirements and policies for the C-3 Districts; and (2) the relationship of the proposed project to, and coordination with, the two proposed Caltrain

Extension alignments, either of which would construct tracks and possibly passenger platforms under portions of the project site.

The San Francisco Planning Commission will decide whether to approve or disapprove the proposed project, after review and certification of the EIR. In selecting or rejecting project alternatives, decision makers may also use other information in the public record.

II. PROJECT DESCRIPTION

The project site is on the south side of Mission Street, bounded by Mission Street to the north, Fremont Street to the west, Beale Street to the east, and the Transbay Terminal property to the south. The site occupies Assessor's Block 3719, Lots 1 and 17 (see Figure 1: Project Location).[1] The project sponsor proposes to demolish three existing two- to six-story structures on the project site, totaling about 173,650 gross square feet (gsf), and build a 58-story, 605-foot-tall, mixed-use development, totaling approximately 1,156,500 gsf. The net change in area for the site would be an increase of about 982,850 gsf.

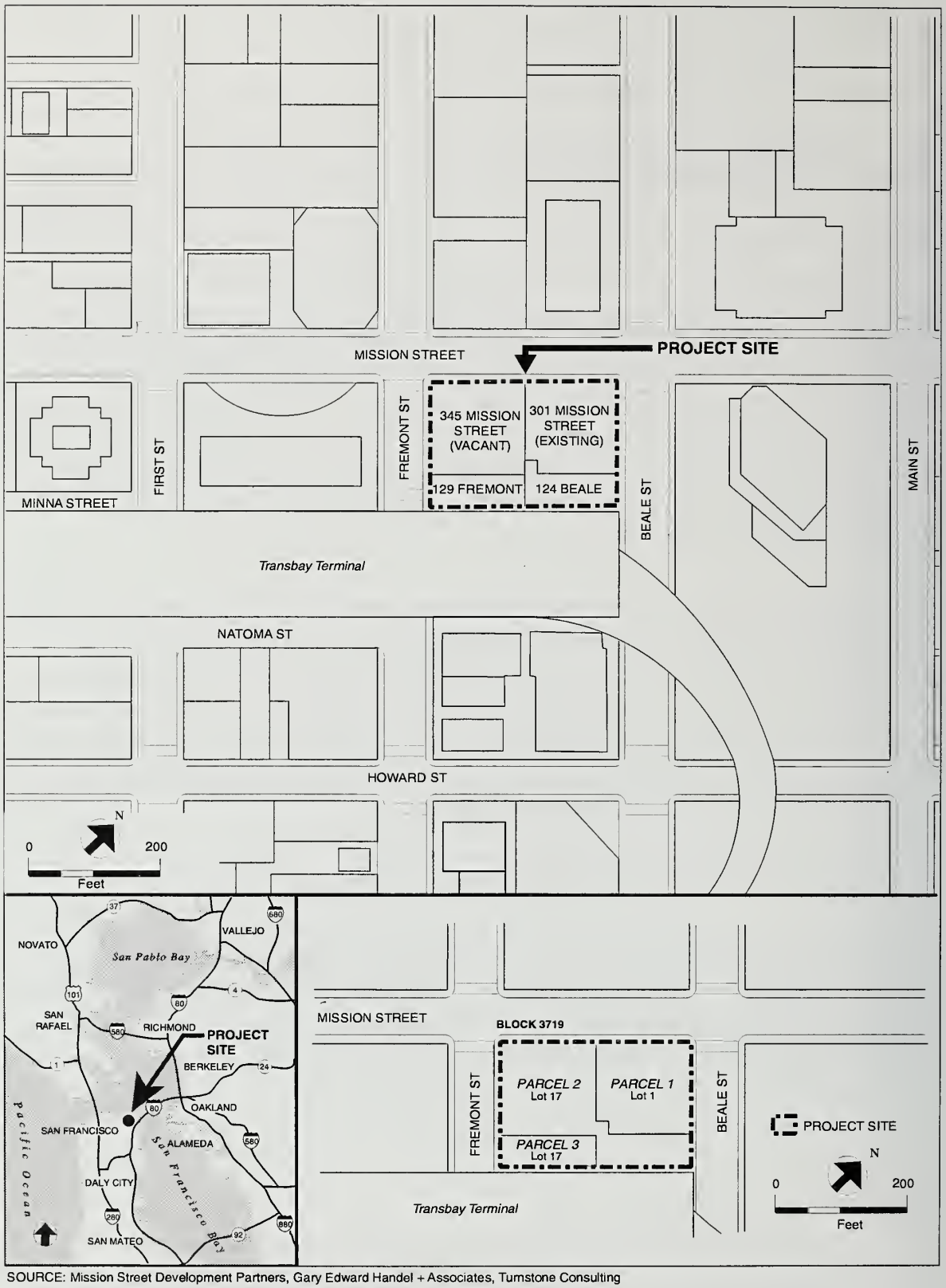
The proposed development would contain office space (about 130,560 gsf); a 120-suite extended-stay hotel[2] (herein referred to as "hotel") (about 164,800 gsf); 320 residential units (about 551,000 gsf); ground-floor retail and restaurant space (about 9,400 gsf); a publicly accessible atrium (about 6,400 gsf); and lobbies (about 4,340 gsf). Building services would occupy about 33,400 gsf and mechanical space would occupy about 104,840 gsf. There would be three off-street loading docks and four off-street van spaces, and 400 spaces of underground parking and vehicular circulation on four levels (about 151,760 gsf).

A. OBJECTIVES OF THE PROJECT SPONSOR

According to the project sponsor, Mission Street Development Partners, LLC, the overall objective of the project is to redevelop an underused commercial site in the downtown core with a mix of complementary uses, including residential, hotel, retail, office, and associated parking and open space improvements. Additional objectives of the project sponsor include:

[1] In the interest of simplification, this report uses a convention for South-of-Market streets, deeming streets running northwest to southeast (like Beale and Fremont Streets) to run "north or south" and streets running from northeast to southwest (like Mission and Howard Streets) to run "east or west."

[2] Extended-stay hotels have cooking facilities in each unit and anticipated stays of a period of weeks rather than days.



EIR/1.21.03

SOURCE: Mission Street Development Partners, Gary Edward Handel + Associates, Turnstone Consulting

FIGURE 1: PROJECT LOCATION

- Develop a high-quality project that, consistent with the Downtown Plan, maximizes growth in the City's core, with a high density mix of uses, taking advantage of view opportunities;
- Make a positive contribution to the Downtown skyline through contemporary, innovative building design and urban form, including a graceful, slender tower articulated through elements such as varied vertical planes, concealed structural columns above the base, and a podium and central atrium connecting to the tower;
- Support the City's efforts to generate development of additional housing units, including affordable units;
- Provide a high quality development immediately adjacent to the proposed Transbay Terminal site, at sufficient density to generate substantial tax increment;
- Provide an active and pedestrian-friendly ground-floor environment, with attractive open spaces and retail uses to enliven the street frontages, including convenient access points and other features to create visual continuity with the site's surroundings and convey a sense of human scale at street level;
- Include adequate on-site parking resources in light of demand generated by the project, including 1:1 residential parking and ample visitor and other short-term spaces to support the balance of on-site uses;
- Contribute resources to the City through generation of various required linkage fees and taxes, including but not limited to affordable housing, open space, transit, art, schools and childcare fees and property, transient occupancy and parking taxes;
- Generate new employment opportunities in a variety of job classifications, including entry-level jobs;
- Support preservation efforts through the use of Transferable Development Rights;
- Include a complementary mix of uses at appropriate densities to both further the City's plans and policies and create an implementable, feasible, development program; and
- Implement a development program that can be designed, constructed, and operated in an expeditious, efficient and cost-effective manner, in accordance with industry best practices.

B. PROJECT LOCATION

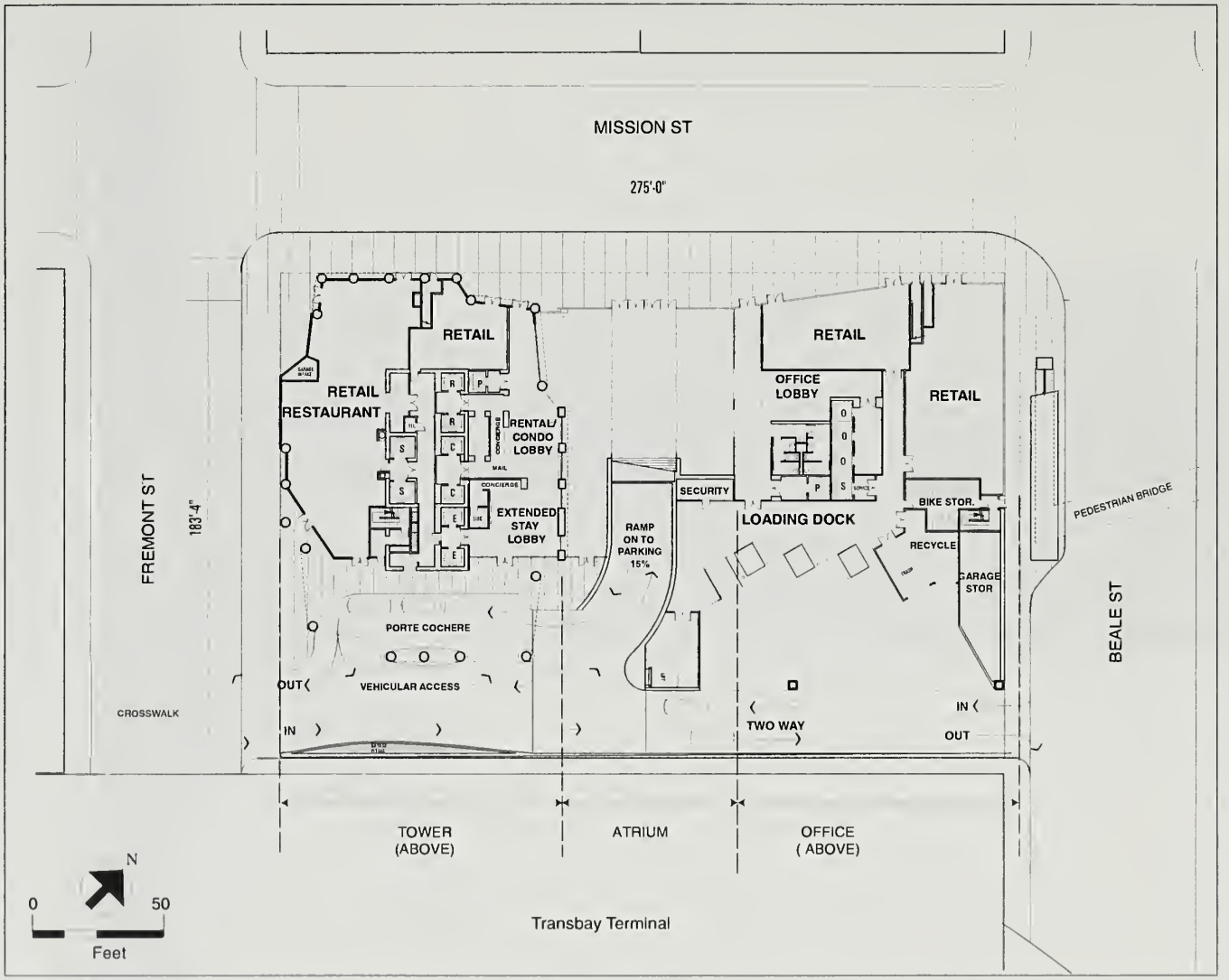
The project site is in San Francisco's downtown core, which includes the expanded Financial District south of Market Street. It is also within the proposed Transbay Redevelopment Plan Area. Land uses in the immediate project vicinity are a mix of commercial (office and retail), public (utility), educational, transportation facilities, and parking uses. Immediately south of the project site, and west across Fremont Street is the Transbay Terminal and Plaza. High-rise office above ground-floor retail is the predominant use north and east of the project site and to the west across Transbay Terminal Plaza; transportation and parking uses predominate immediately south and southwest of the site.

The approximately 50,417-square-foot, level, rectangular project site is occupied by a six-story office building above one basement level at 124 Beale Street; a six-story office building above one basement level at 301 Mission; and a two-story industrial building used for offices at 129 Fremont Street. Together, these buildings total about 173,650 gsf, including the following: about 140,000 gsf of office space, about 20,200 gsf of retail space, and 13,450 gsf of basement storage. The northwestern portion of the site is a fenced, vacant lot; it was formerly occupied by 345 Mission Street, a building containing about 170,150 gsf of space that was damaged in the 1989 Loma Prieta earthquake and demolished.

C. PROJECT CHARACTERISTICS

The project would have three main structural, functional and visual components: a 58-story, 605-foot-tall tower on the western portion of the site; a 43-foot-tall glass-enclosed central atrium; and a nine-story, 125-foot-tall office component on the eastern portion of the site. The three components would form one building. The project design would be contemporary in style. (See Figure 2: Ground-Floor Plan; Figure 3: Mission Street Elevation; Figure 4: Fremont Street Elevation; Figure 5: Beale Street Elevation; and Figure 6: South Elevation.)

The tower's mass would be articulated into varied vertical wall planes intended to reduce the tower's actual and apparent bulk, when viewed from street level, add visual interest, and emphasize the tower's verticality. The central atrium would be enclosed by transparent glass at

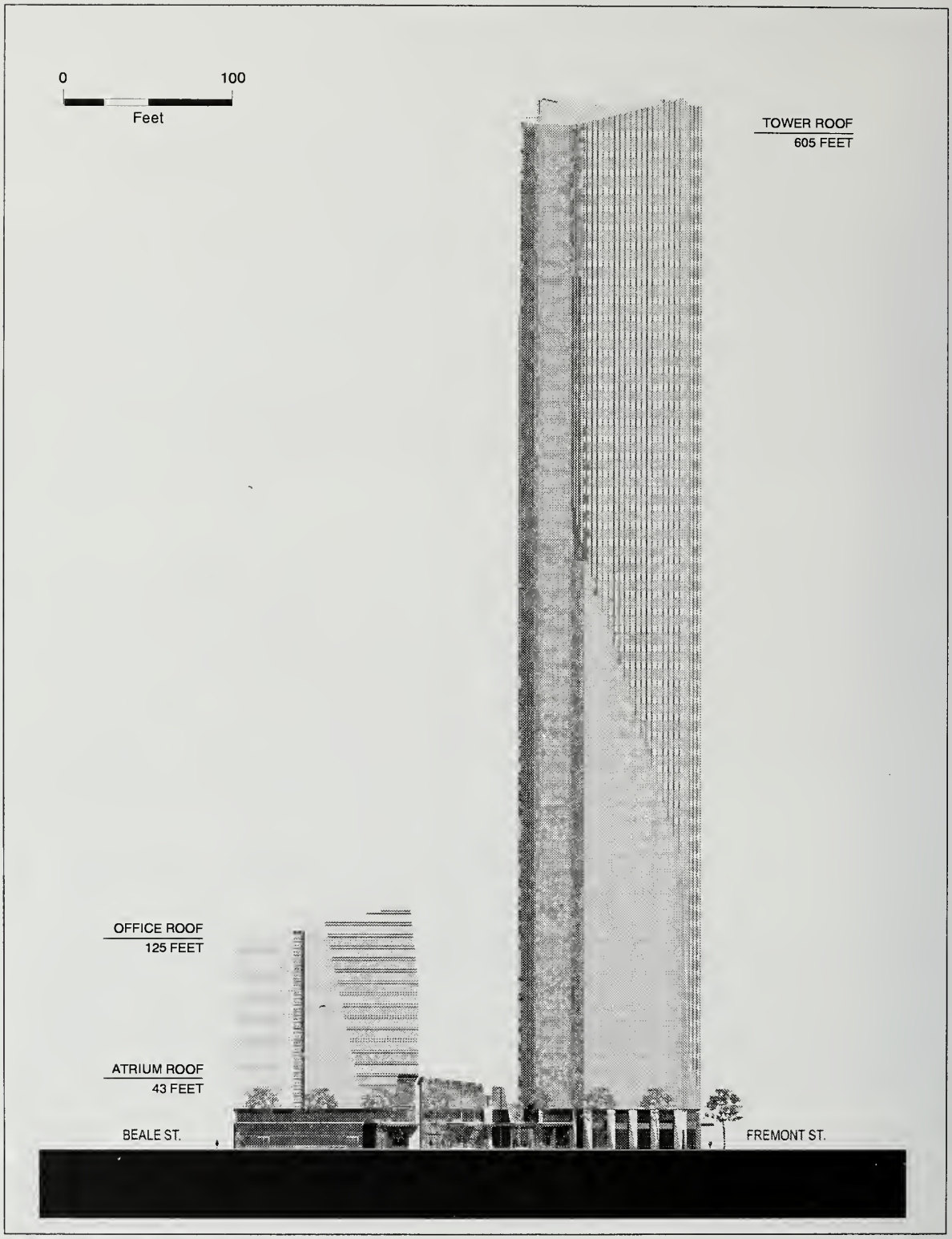


SOURCE: Mission Street Development Partners, Gary Edward Handel + Associates, Turnstone Consulting

301 MISSION STREET

2001.0792E

FIGURE 2: GROUND-FLOOR PLAN



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SOURCE: Gary Edward Handel + Associates, Turnstone Consulting

301 MISSION STREET

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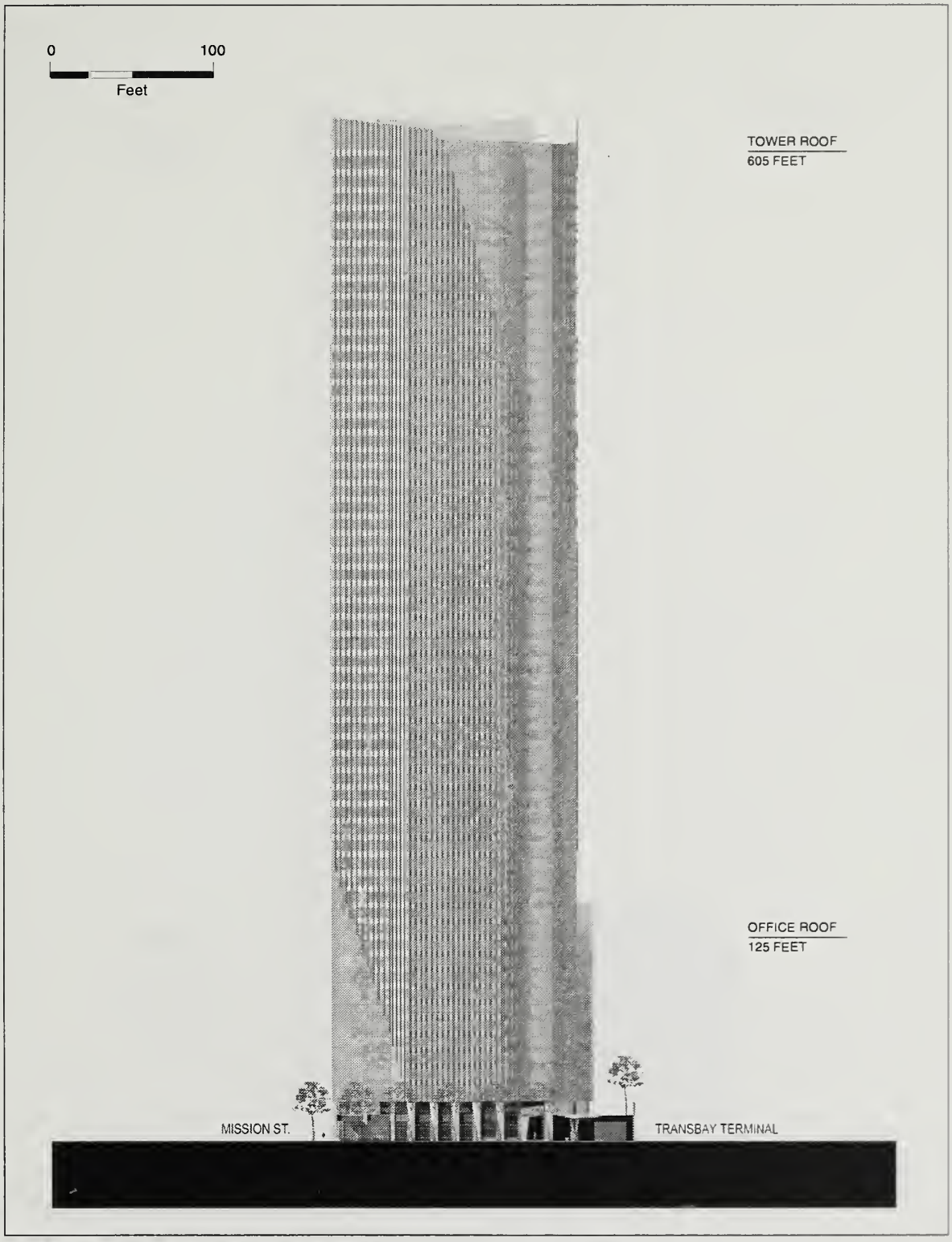
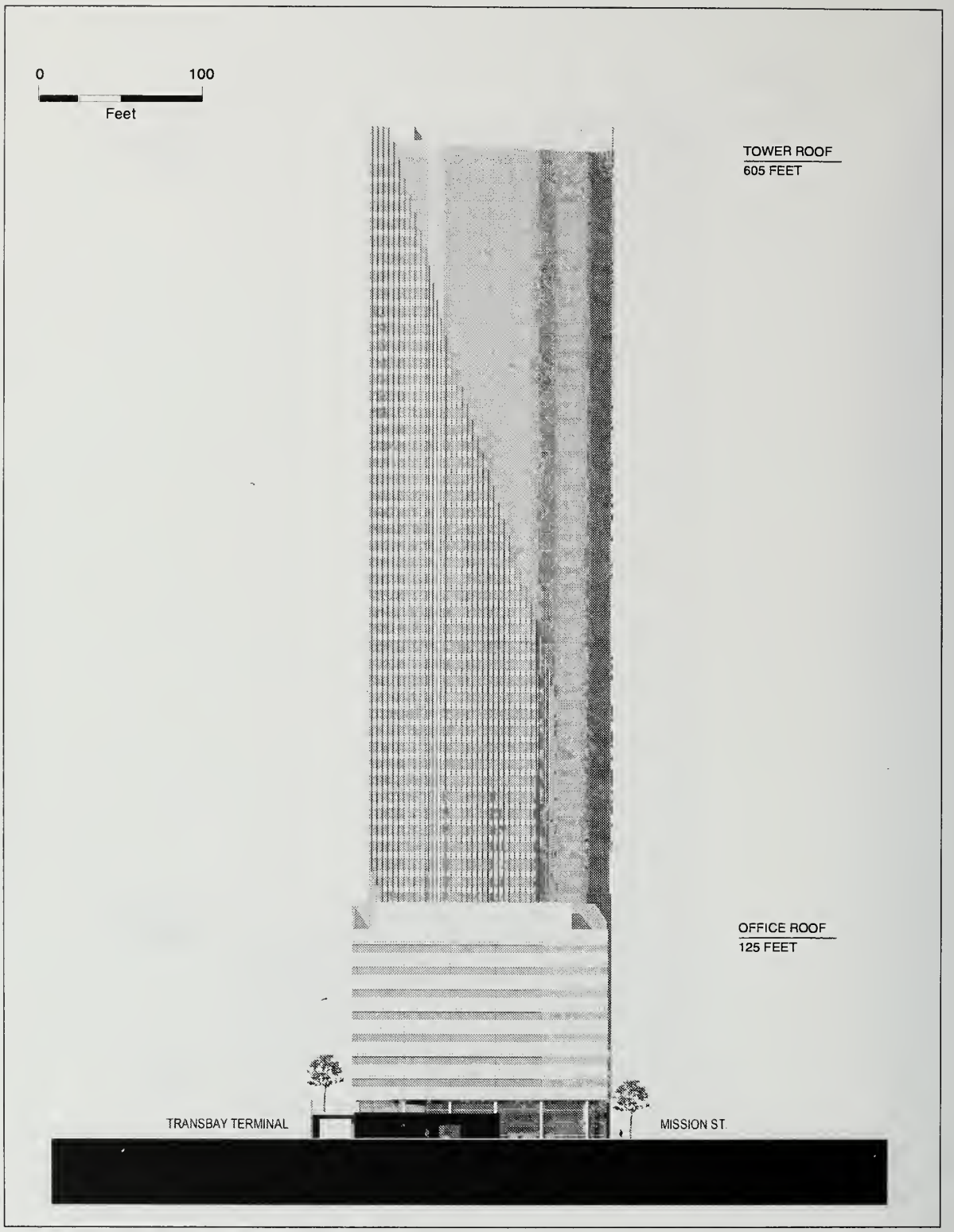
FIGURE 3: MISSION STREET ELEVATION



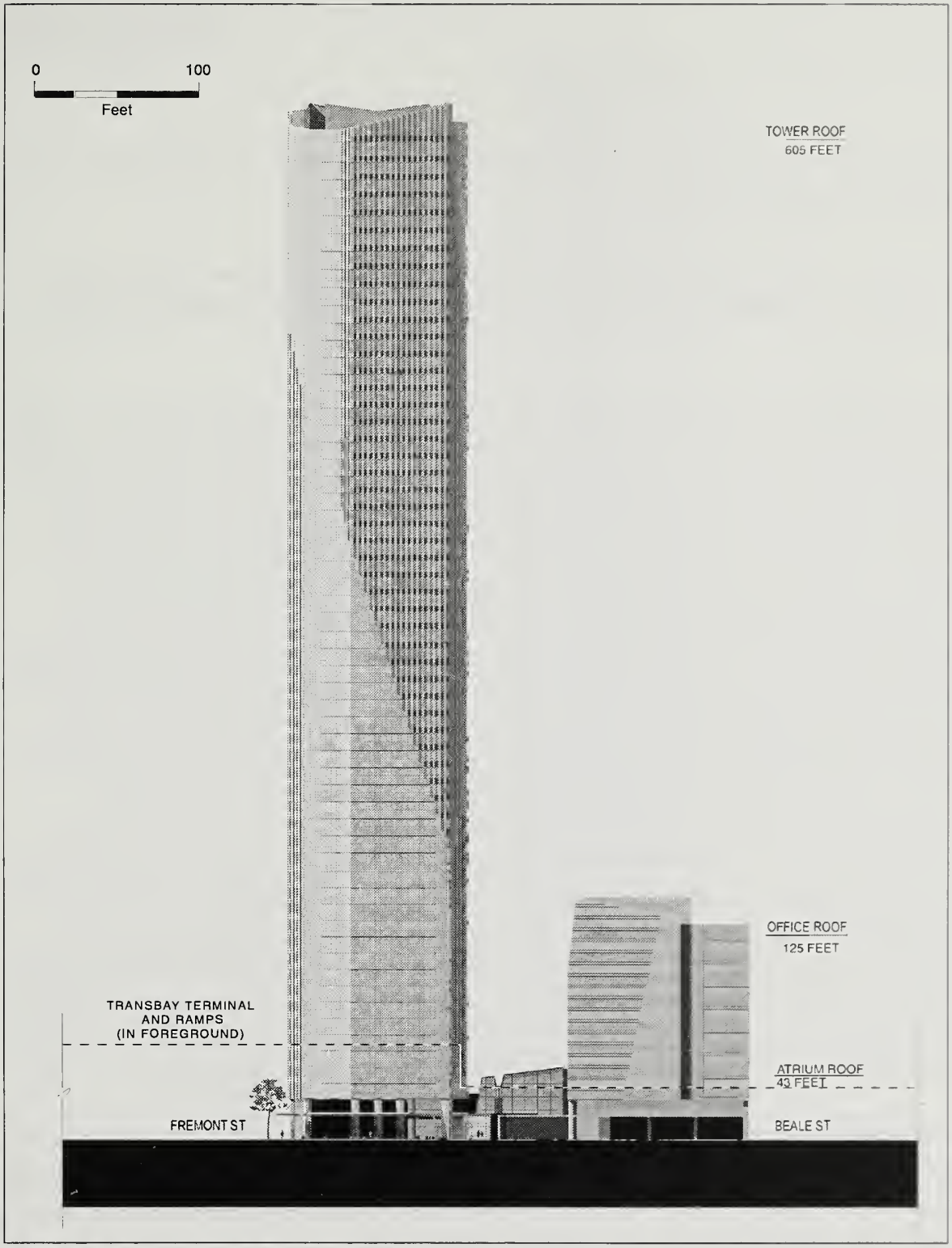
EIR/10.5.02

SOURCE: Gary Edward Handel + Associates, Turnstone Consulting



EIR/10.5.02

SOURCE: Gary Edward Handel + Associates, Turnstone Consulting



EIR/10.5.02

SOURCE: Gary Edward Handel + Associates, Turnstone Consulting

301 MISSION STREET

2001.0792E

FIGURE 6: SOUTH ELEVATION

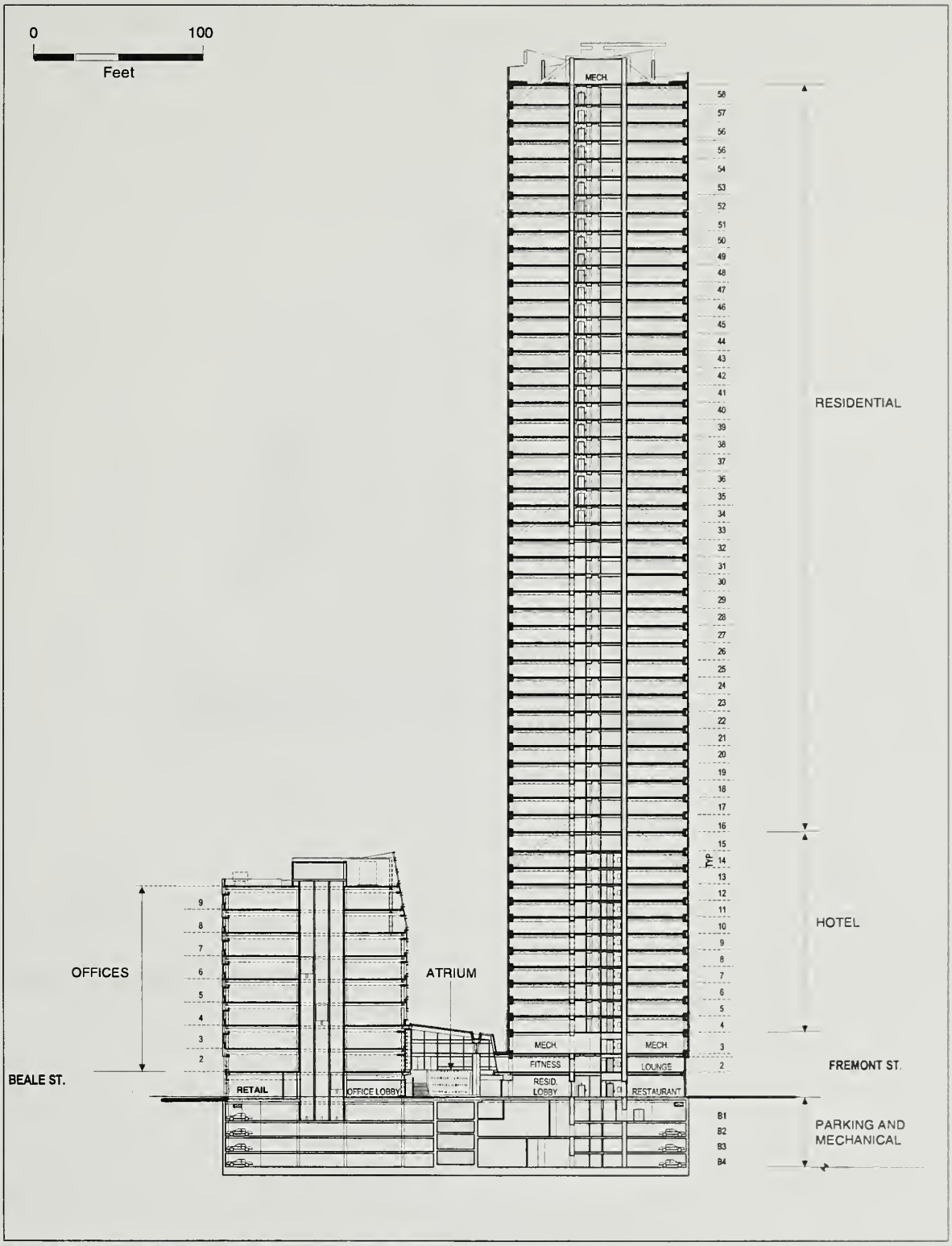
the top and at its north and south ends. The office component's proportions and exterior would contrast with those of the tower.

The height of the central atrium would define the height of a base component which is carried across the lower three floors of the office component. Ground-floor retail storefronts would be transparent.

The 301 Mission Street project would include a mix of uses totaling about 1,156,500 gsf. Retail and restaurant space (about 9,400 gsf), a publicly accessible atrium (about 6,400 gsf) and lobbies (about 4,340 gsf) would occupy the ground floor. There would also be three ground-level, off-street loading docks and two off-street van spaces. Offices are proposed for the second to the ninth floors of the office building component on the eastern portion of the site (about 130,560 gsf). A 120-suite hotel is proposed on the second to the fifteenth floors of the tower (about 164,800 gsf, including a lounge and a fitness center on the second level for the use of hotel occupants). There would be 320 condominium residential units at the sixteenth to the fifty-eighth floors of the tower (totaling about 551,000 gsf). The condominiums are anticipated to include about 140 studio and one-bedroom units, and about 180 two- and three-bedroom units. The project would have about 33,400 gsf of building services and about 104,840 gsf of mechanical space. The approximately 151,760 gsf of parking area would include four surface levels containing 400 parking spaces (about 123,060 gsf) and circulation space (about 28,700 gsf). About 320 parking spaces would be dedicated to residential use. The remaining 80 spaces would serve the commercial uses. (See Figure 7: Building Section Showing Use by Location; Figure 8: Second-Floor Plan, Hotel and Office; Figure 9: Representative Plan, Hotel Floors 3-15 and Office Floors 2-9; Figure 10: Representative Plan, Residential; Figure 11: First Basement Plan, Parking; and Figure 12: Representative Basement Plan, Parking Floors 2-4.) Total net change in gross area for the site would be an addition of about 982,850 gsf.[3] If the demolished 345 Mission Street building (170,150 gsf) were counted, the net addition would be 812,700 gsf.

The proposed project would be set back from Mission Street at the ground level, widening the 15-foot sidewalk to about 31 feet at the atrium entrance forming a plaza to mark the primary building entrance (see Figure 2, p. 29). The atrium would provide pedestrian passage to the second-floor landscaped, outdoor garden terrace at the rear of the site, one level above grade. Separate

[3] 1,156,500 gsf for proposed project minus about 173,650 gsf for three existing buildings = 982,850 gsf.



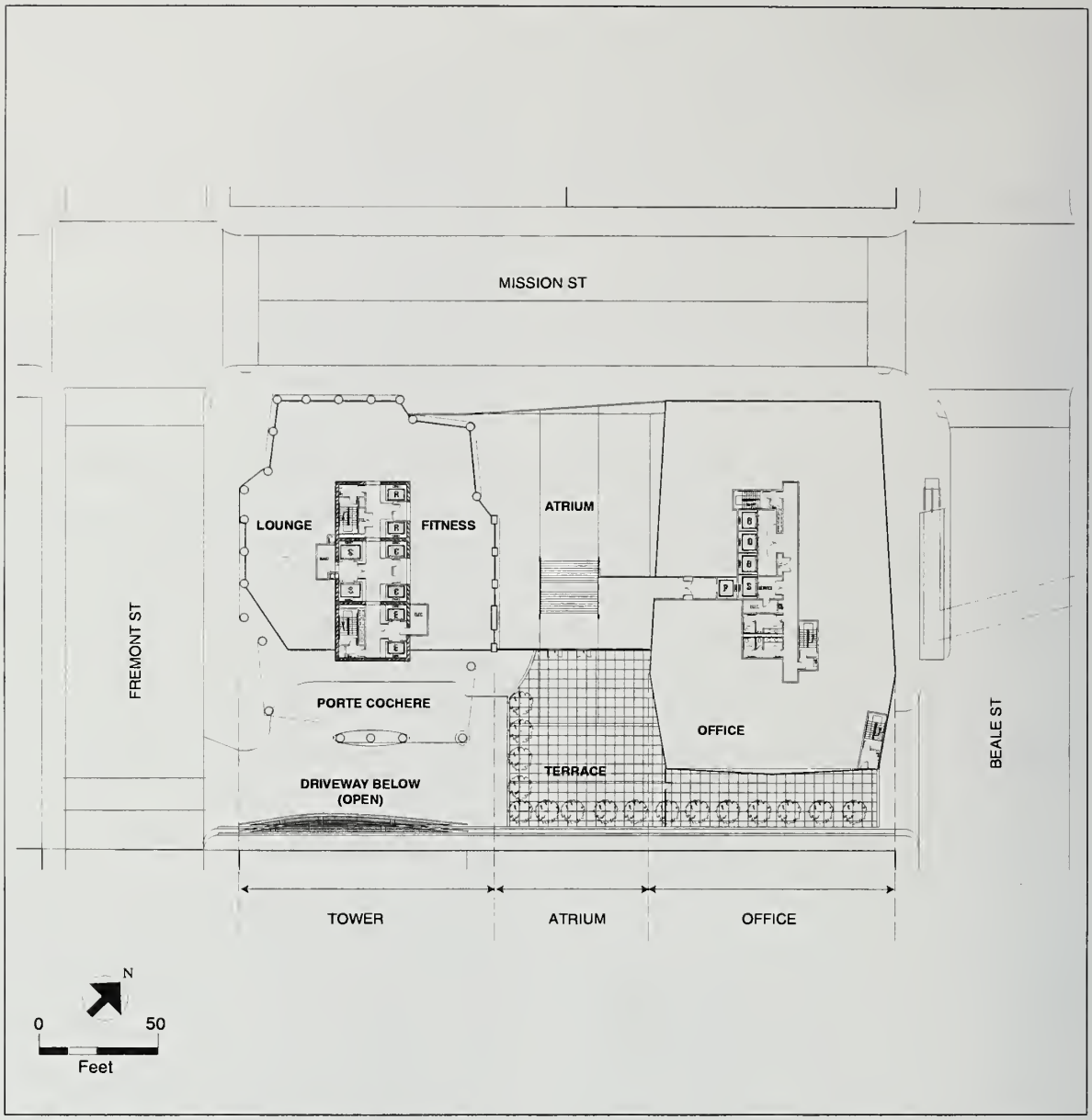
SOURCE: Gary Edward Handel + Associates, Turnstone Consulting

EIR/10.5.02

301 MISSION STREET

2001.079E

FIGURE 7: BUILDING SECTION SHOWING USE BY LOCATION



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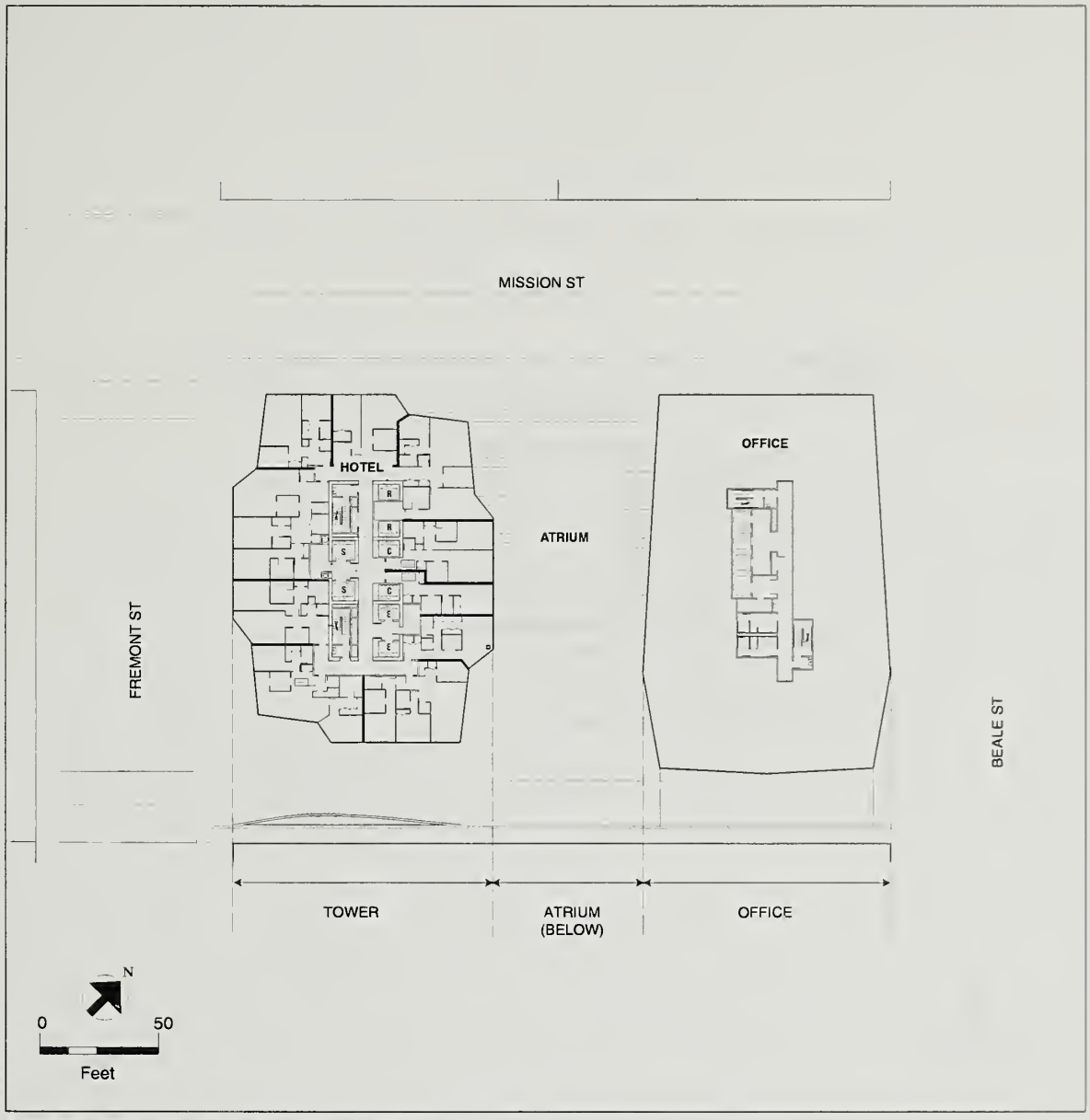
SOURCE: Gary Edward Handel + Associates, Turnstone Consulting

FIGURE 8: SECOND-FLOOR PLAN, HOTEL AND OFFICE



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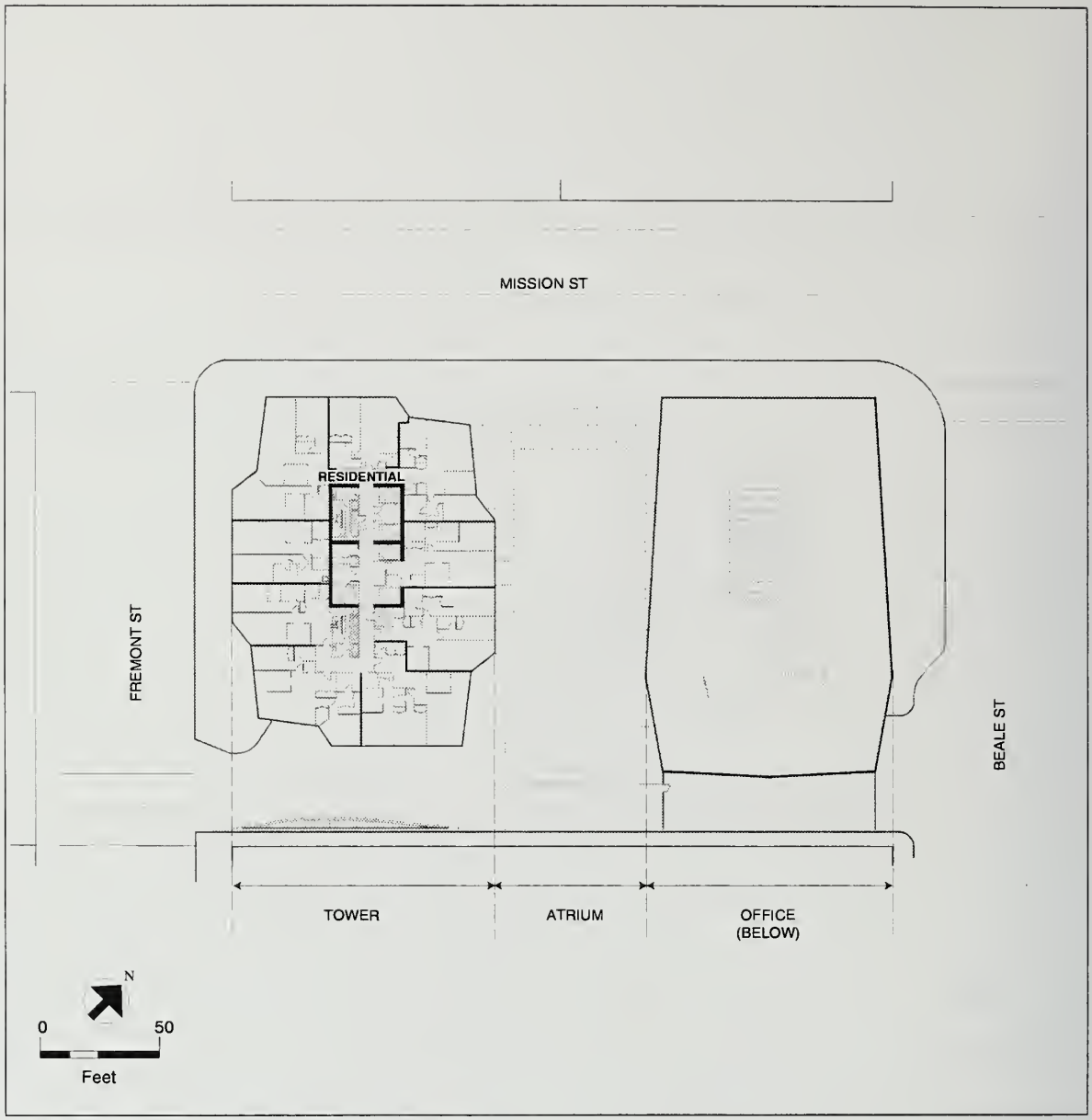
SOURCE: Gary Edward Handel + Associates, Turnstone Consulting

FIGURE 9: REPRESENTATIVE PLAN,
HOTEL FLOORS 3-15 AND OFFICE FLOORS 2-9



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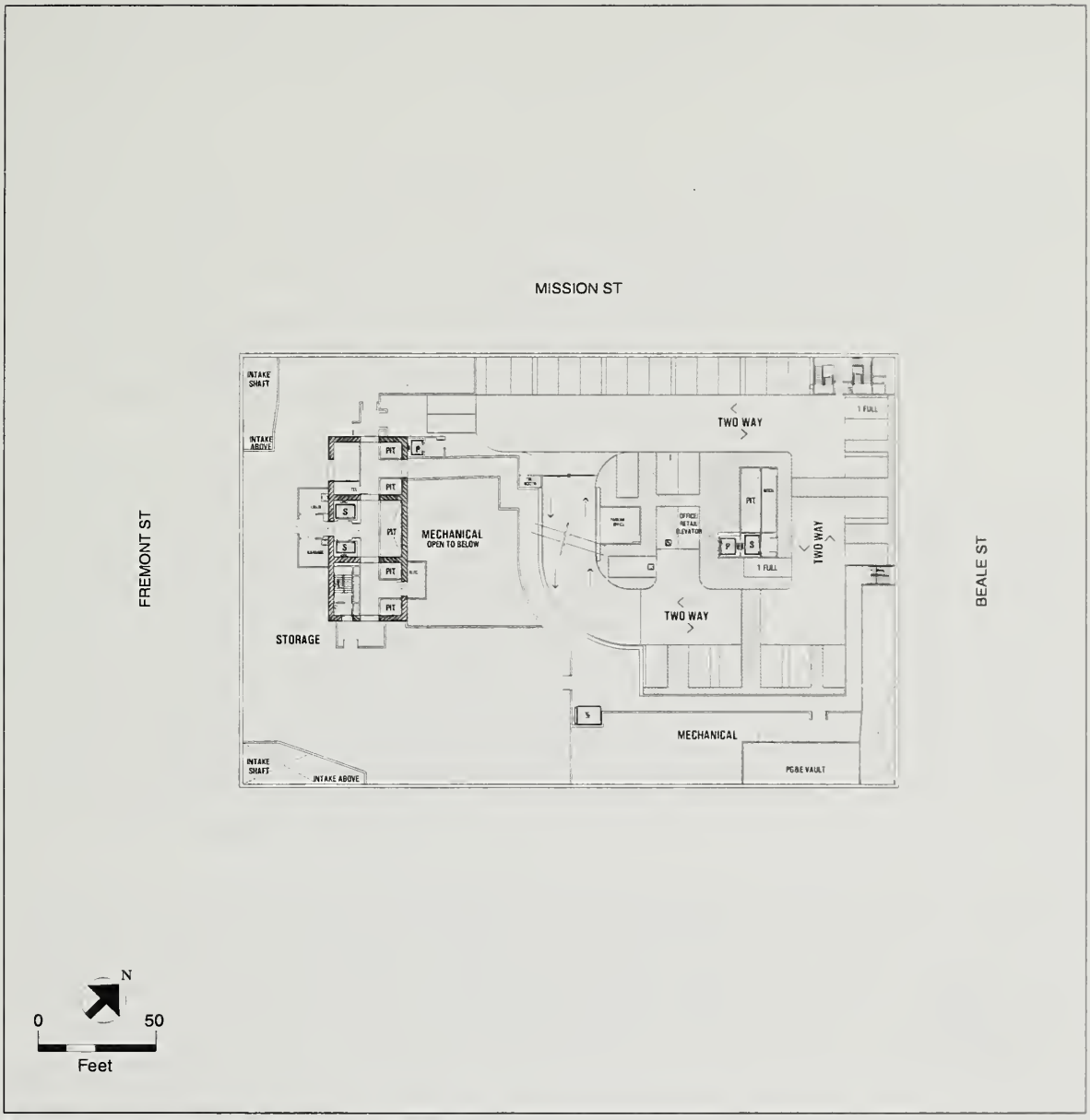
SOURCE: Gary Edward Handel + Associates, Turnstone Consulting

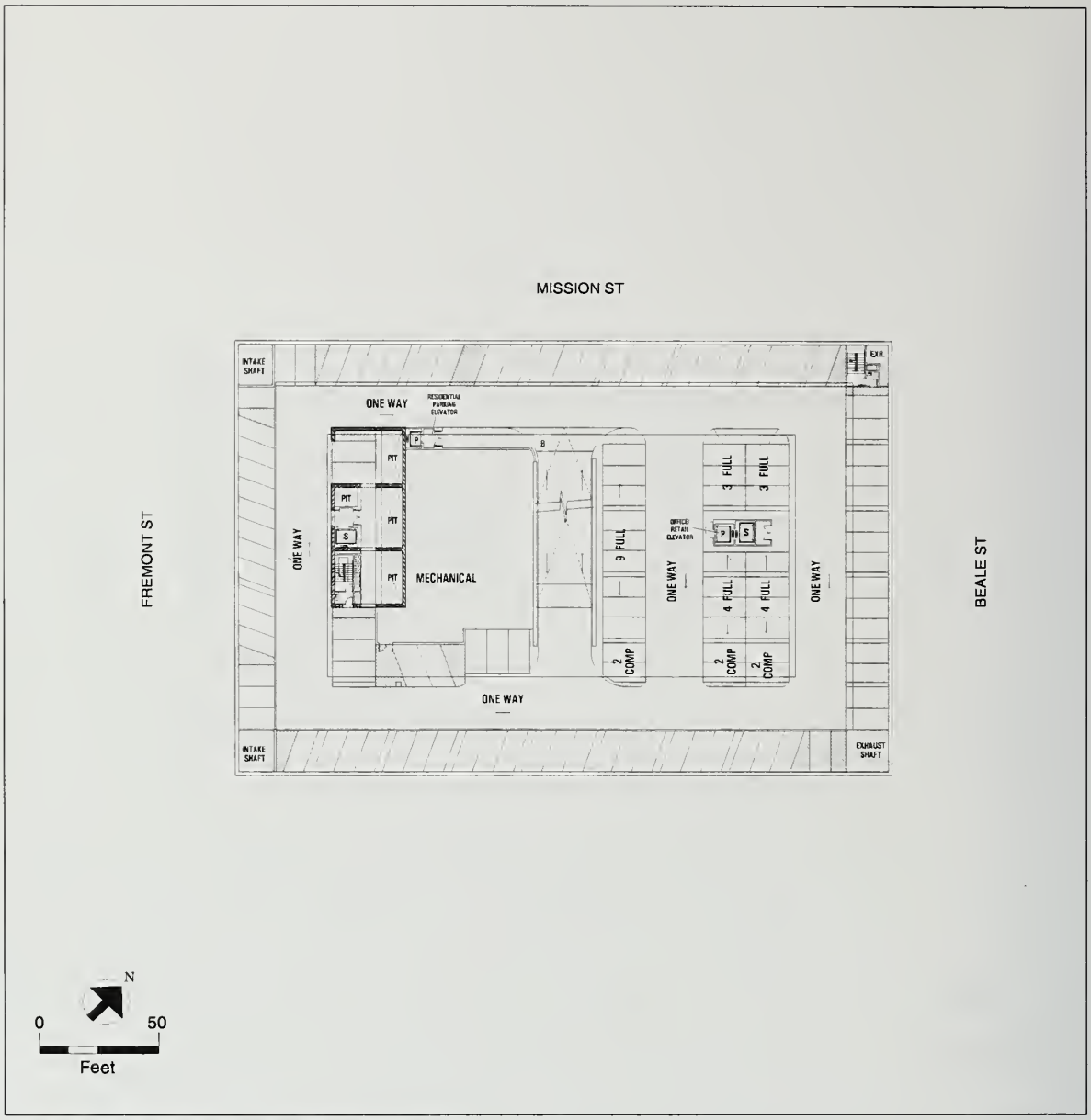
FIGURE 10: REPRESENTATIVE PLAN, RESIDENTIAL



EIR/10.5.02

SOURCE: Gary Edward Handel + Associates, Turnstone Consulting

FIGURE 11: FIRST BASEMENT PLAN, PARKING



SOURCE: Gary Edward Handel + Associates, Turnstone Consulting

FIGURE 12: REPRESENTATIVE BASEMENT PLAN, PARKING FLOORS 2-4

entrances to the retail and restaurant spaces would be located along Mission, Fremont, and Beale Streets. Entrance to the office lobby would be from a separate entrance on Mission Street or from the central atrium. The residential lobby and hotel lobby would share an entrance on Mission Street and another entrance from the porte cochere on the southwest portion of the project site. Secured bicycle storage for 17 bicycles would be located on the ground-floor level. Shower and locker facilities would be located on the second level of the office building.

The proposed project would provide 19,210 sq. ft. of publicly accessible open space and 3,500 sq. ft. of privately accessible open space for use by the residents. Publicly accessible open space would consist of the following: a ground-level atrium (about 6,400 gsf); a building setback on Mission and Fremont Streets to form a plaza with seating (about 5,600 gsf); and a second-level, landscaped, outdoor garden terrace (about 7,210 gsf). In accordance with the requirements of Planning Code Section 138(d)(8): Open Space Requirements in C-3 Districts - Types and Standards of Open Space, the atrium, garden terrace, and plaza would be open to the public during normal business hours. A partially enclosed view terrace (about 3,500 gsf) that would be screened against strong winds would be located on the roof of the residential/hotel tower; it would not be accessible to the public.

Vehicular access to the project would be from Fremont Street at the southwest corner of the site or from Beale Street at the southeast corner of the site, via an internal two-way, drive-though connecting the two streets along the south side of the site (see Figure 2, p. 29). The porte cochere would serve the restaurant, hotel and residential lobby, and atrium; it would provide off-street passenger loading.

A ramp entrance to the parking garage would be located centrally off of the two-way drive and would lead down to about 400 parking spaces on four subsurface levels (see Figures 11 and 12, pp. 39-40). Elevators would provide access to the office, residential and hotel uses. About 320 parking spaces would be dedicated for use by residents. The remaining 80 spaces would be for hotel, office, retail, and restaurant uses, and would be open to the public.

Three off-street loading docks at the ground level and four van spaces would be located near the southeast corner of the site. Vehicles would enter the project's drive-through from Fremont Street and back into the loading bays.

The project architect is Gary Edward Handel & Associates.

D. PROJECT APPROVALS AND SCHEDULE

Before any discretionary project approvals may be granted for the project, the Planning Commission must certify the Environmental Impact Report as accurate, objective and adequate. This Draft EIR will first undergo a public comment period as noted on the cover, during which time the Planning Commission will hold a public hearing on the Draft EIR. Following the close of the public comment period, the Planning Department will prepare and publish a Draft Summary of Comments and Responses, containing a summary of all substantive comments received, and the Department's responses to those comments. It may also specify changes to the Draft EIR. The Draft EIR, together with the Summary of Comments and Responses including revisions to the Draft EIR, will be considered by the Planning Commission in a public meeting and presented to the Planning Commission for certification. The Commission and other decision makers will consider the information in the Final EIR in their deliberations on the project. As noted, no approvals or permits may be issued prior to EIR certification.

PROJECT APPROVALS

Planning Code Section 309: Permit Review in C-3 Districts

The project requires approval as new construction in a C-3 District. Planning Code Section 309 provides procedures governing review of project authorization and building and site permit applications for the construction or substantial alteration of structures in C-3 Districts. Section 309 also governs exceptions (discussed below), and certain Code requirements related to C-3 development including Section 138, Open Space Requirements; Section 138.1, Pedestrian Streetscape Improvements; Section 146, Sunlight Access to Public Sidewalks; Section 147, Reduction of Shadows on Certain Public or Publicly Accessible Open Spaces; Section 148, Reduction of Ground-Level Wind Currents; and Section 149, Artworks. Under Section 309, the Planning Commission may impose additional requirements and limitations on the project design, as conditions of approval, to further the objectives and policies of the *General Plan* or the purposes of the Planning Code.

Planning Code Section 272: Bulk Limits: Special Exceptions in C-3 Districts

The project requires an allowable exception to upper-tower bulk limits. Section 270(d)(3) limits the tower bulk above 350 and up to 550 feet in height to a maximum average floor size of

12,000 square feet, a maximum diagonal linear measurement of 160 feet, and a maximum length of 130 feet. The project proposes upper-tower floor plates averaging 13,765 square feet, a 168-linear-foot diagonal dimension, and a maximum dimension of 147 linear feet in length. Review of the request for an exception under Section 272, which provides for exceptions, will take place during review under Section 309.

Planning Code Section 263.9: Height Limits: Special Exceptions for Upper Tower Extensions in S Districts

The project sponsor requests an allowable exception to height limits for upper-tower extensions. A 605-foot tower is proposed in a 550-S Height and Bulk District, exceeding the 550-foot height limit by 55 feet. According to Section 263.9, in S Districts, additional height up to 10 percent, or 55 feet for the project, may be allowed as an extension of the upper tower, provided that the volume of the upper tower as extended is reduced by a percentage specified in the Code (see Planning Code Section 270(4)).

Planning Code Section 223(p): Major (Nonaccessory) Parking Garage Not Open to the Public

The project requires Conditional Use authorization for a major nonaccessory parking garage not open to the public per Section 223(p) because 200 parking spaces (of the 400 total proposed) cannot be classified as accessory. Two hundred parking spaces are allowable as accessory under Planning Code Section 204.5(c): Parking and Loading as Accessory Uses. Of these,120 would be for the residential use (150 percent of the 80 required parking spaces for the residential use); and 80 spaces would be for the remaining non-residential uses.[4] The procedures and criteria for review are set forth in Planning Code Section 303 Conditional Uses; Section 157, Conditional Use Applications for Parking Exceeding Accessory Amounts: Additional Criteria; and Section 158, Major Parking Garage in C-3 Districts. The floor area devoted to residential parking in excess of 150 percent of the Code requirement (i.e. nonaccessory) is attributable to the FAR; for the project, that is about 61,138 gsf.

[4] The number of accessory parking spaces for the non-residential uses in the proposed project was arrived at, pursuant to Section 204.5, as follows: 7% of 400,000 square feet of commercial floor area = 28,000 / 350 square feet per space = 80 spaces. Therefore, the project would not require a Conditional Use authorization for the parking dedicated to commercial uses.

Planning Code Section 216(i): Hotel Use

The project requires Conditional Use review and authorization for hotel use in the C-3-O District under Planning Code Section 216(i). The procedures and criteria for review are set forth in Planning Code Sections 303 (for Conditional Use generally) and 303(g) (for hotel use specifically).

Planning Code Section 128: Transfer of Development Rights in C-3 Districts

The project would require certification by the Zoning Administrator under Planning Code Section 128 of the transfer of development rights (TDRs).

Other Planning Code Sections

The project would not require authorization for office development under Planning Code Sections 321-325 regarding Office Development: Annual Limit. The project would contain about 130,560 gsf of office space. The Zoning Administrator has determined that the 150,000 gsf of office space formerly at 345 Mission Street, required to be demolished following a "red tag" determination by the City after the Loma Prieta earthquake, constitutes pre-existing office space.[5] Therefore, there would be a net decrease in office space for the site, rather than an increase, and approval is not required under Sections 321-325.

On October 16, 2002, the project sponsor filed an Application for Review of a C-3 (Downtown) Project under Section 309 of the Planning Code, including a request for the exceptions noted above, and an Application for Conditional Use approval for hotel use in the C-3-O District and parking in excess of 150 percent of the amount required by the Code for residential use (Planning Department Case No. 2001.0792 CX). After certification of this EIR, the Planning Commission will hold a hearing to consider the Conditional Use authorization and the exceptions requested under Section 309.

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[5] Laurence Badiner, Zoning Administrator, San Francisco Planning Department, *Letter of Determination*, letter to Pamela Duffy, Esq., Coblentz, Patch, Duffy and Bass, July 8, 2002. A copy of this letter is available for review, by appointment, at the Planning Department, 1660 Mission Street, as part of the project file.

Other Requirements and Approvals

The project would require the merger of existing lots by the Department of Public Works (DPW).

The project requires the elimination or relocation of the existing midblock pedestrian crosswalk across Fremont Street from the project site to the Transbay Terminal. That decision will be made in consultation with DPW. Elimination of the crosswalk would require approval by the Board of Supervisors; relocation would require administrative review by DPW.

The project is subject to affordable housing requirements. The Board of Supervisors passed Inclusionary Affordable Housing legislation (Ordinance No. 3702, codified as Planning Code Section 315) on March 2, 2002. The Ordinance sets forth inclusionary housing requirements for residential development proposals above a certain unit threshold, and allows for compliance on-site or off-site, or by payment of an in-lieu fee. Under Section 315 the requirement for an eligible project varies between 5 and17 percent depending on the nature of approvals requested, when the building permit application was submitted, and method of compliance. The project sponsor is currently evaluating options for compliance, and has not yet made a decision. The Planning Department will confirm the requirements for the project as part of its application review process, and the project sponsor's proposals will be considered by the Planning Commission, as part of its deliberations on whether to approve or disapprove the project.

PROJECT SCHEDULE

The project sponsor anticipates environmental review, project review, and a detailed design to be completed in early 2003. If the project were approved and the necessary building permits issued, construction would commence during the first half of 2003 and would last about 36 to 48 months. Initial occupancy is planned for 2006.

E. GENERAL PLAN GOALS AND POLICIES

Before approving a permit for any project requiring an initial study under the California Environmental Quality Act (CEQA), or issuing a permit for any demolition, conversion or change of use, the City is required to find that the proposed project is consistent with the eight General Plan Priority Policies established by Planning Code Section 101.1 (Priority Policies). The Planning Commission's review of the project for consistency with the Priority Policies will take

place as a component of its review of the required Planning Code approvals outlined in the Project Approvals section. The Priority Policies are preservation and enhancement of neighborhood serving retail uses; protection of neighborhood character; preservation and enhancement of affordable housing; discouragement of commuter automobiles; protection of industrial and service sectors from commercial office development and enhancement of resident employment and business ownership; earthquake preparedness; landmark and historic building preservation; and protection of open space.

The City's *General Plan*, which provides general policies and objectives to guide land use decisions, contains some policies that relate to physical environmental issues. The Planning Commission and other City decision makers will evaluate the proposed project in accordance with provisions of the *General Plan*, including those in the Downtown Plan, and will consider potential conflicts with the *General Plan* as part of the decision making process. This consideration of *General Plan* objectives and policies is carried out independent of the environmental review process, as part of the decision to approve, modify, or disapprove a proposed project. Potential conflicts with provisions of the *General Plan* that would cause physical environmental impacts have been evaluated as part of the impacts analysis carried out for relevant, specific topics in this project's EIR and Initial Study (see Appendix A). Any potential conflicts with *General Plan* objectives and policies not identified in the EIR could be considered in the project evaluation process and would not alter the physical environmental effects of the proposed project analyzed in this EIR. Some key objectives, goals, and policies of the *General Plan* relevant to the project are as follows:

Downtown Plan

The project site is within the part of San Francisco covered by the Downtown Plan of the *General Plan*. The Downtown Plan is the policy document that guides growth and development in San Francisco's downtown. Centered on Market Street, the plan covers an area roughly bounded by The Embarcadero on the east, Washington Street on the north, Van Ness Avenue on the west, and Folsom Street on the south. The plan contains a number of objectives and policies that address the following issues: provision of space for commerce, retail, housing, and open space; preservation of the past; urban form; circulation within the downtown area; and seismic safety. The proposed project would intensify use of the site in a manner generally consistent with the Downtown Area Plan.

Some key objectives, goals, and policies of the Downtown Plan, relevant to the proposed project, are as follows:

Objective 1, Policy 1: Encourage development which produces substantial net benefits and minimizes undesirable consequences. Discourage development which has substantial undesirable consequences which cannot be mitigated.

Objective 2, Policy 1: Encourage prime downtown office activities to grow as long as undesirable consequences of such grown can be controlled.

Objective 2, Policy 2: Guide location of office development to maintain a compact downtown core and minimize displacement of other uses.

Objective 3, Policy 5: Meet the convenience needs of daytime downtown workers.

Objective 4, Policy 1: Guide the location of new hotels to minimize their adverse impacts on circulation, existing uses, and scale of development.

Objective 6: Within acceptable levels of density, provide space for future office, retail, hotel, service and related uses in downtown San Francisco.

Objective 7, Policy 1: Promote the inclusion of housing in downtown commercial developments.

Objective 9: Require useable open space in sufficient quantity and variety to meet the needs of downtown workers, residents and visitors.

Objective 10, Policy 4: Provide open space that is clearly visible and easily reached from the street or pedestrian way.

Objective 13, Policy 1: Relate the height of buildings to important attributes of the city pattern and of the height and character of existing and proposed development.

Objective 13, Policy 2: Foster sculpturing of building to create less overpowering buildings and more interesting building tops, particularly the tops of towers.

Objective 13, Policy 4: Maintain separation between buildings to preserve light and air and prevent excessive bulk.

Objective 14, Policy 2: Promote building forms that will minimize the creation of surface winds near the base of buildings.

Objective 15, Policy 3: Encourage more variation in building facades and greater harmony with older buildings through the use of architectural embellishments and bay or recessed windows.

Objective 16, Policy 1: Conserve the traditional street to building relationship that characterizes downtown San Francisco.

Objective 16, Policy 2: Provide setbacks above a building base to maintain the continuity of the predominant streetwalls along the street.

Objective 16, Policy 4: Use designs and materials and include activities at the ground floor to create pedestrian interest.

Objective 18, Policy 3: Discourage new long-term commuter parking spaces in and around downtown. Limit long-term parking spaces serving downtown to the number that already exists.

Objective 20, Policy 7: Encourage short-term use of existing parking spaces within and adjacent to the downtown core by converting all-day commuter parking to short-term parking in areas of high demand. Provide needed additional short-term parking structures in peripheral locations around but not within the downtown core, preferably in the short-term parking belt.

Objective 21, Policy 1: Provide off-street facilities for freight loading and service vehicles on the site of new buildings sufficient to meet the demands generated by the intended uses.

Objective 22, Policy 1: Provide sufficient pedestrian movement space.

Objective 22, Policy 3: Ensure convenient and safe pedestrian crossings.

Objective 22, Policy 4: Create a pedestrian network in the downtown core area that includes streets devoted to or primarily oriented to pedestrian use.

Commerce and Industry Element

Objective 3, Policy 2: Promote measures designed to increase the number of San Francisco jobs held by San Francisco residents.

Transportation Element

Objective 1, Policy 1.2: Ensure the safety and comfort of pedestrians throughout the city.

Objective 1, Policy 1.6: Ensure choices among modes of travel and accommodate each mode when and where it is most appropriate.

Objective 12, Policy 12.2: Build on successful efforts implemented at numerous private-sector worksites, such as the downtown Transportation Brokerage Program and voluntary programs, and adapt such programs for application in new areas as appropriate.

Objective 14, Policy 14.7: Encourage the use of transit and other alternative modes of travel to the private automobile through the positioning of building entrances that prioritize access from these modes.

Objective 16, Policy 5: Reduce parking demand through limiting the absolute amount of spaces and prioritizing the spaces for short-term and ride-share uses.

Objective 17, Policy 1: Discourage the provision of new long-term parking downtown and near major employment centers.

Objective 23, Policy 2: Widen sidewalks where intensive commercial, recreational, or institutional activity is present and where residential densities are high.

Objective 30, Policy 30.5: In any large development, allocate a portion of the provided off-street parking spaces for compact automobiles, vanpools, bicycles and motorcycles commensurate with standards that are, at a minimum, representative of their proportion of the City's vehicle population.

Objective 32, Policy 32.1: Discourage new long-term commuter parking spaces for single occupant automobiles in and around downtown. Limit the long-term parking spaces to the number that already exists.

Objective 32, Policy 32.5: When the priority functions of service vehicle access and pedestrian movement are sufficiently accommodated on downtown alleys, the function of remaining alley space should be designated for motorcycle parking, primarily short-term.

Objective 40, Policy 3: Off-street loading facilities and spaces in the downtown area should be enclosed and accessible by private driveways designed to minimize conflicts with pedestrian, transit and automobile traffic.

Urban Design Element

Objective 3, Policy 2: Avoid extreme contrasts in color, shape and other characteristics which will cause new buildings to stand out in excess of their public importance.

Objective 3, Policy 3: Promote efforts to achieve high quality of design for buildings to be constructed at prominent locations.

Objective 3, Policy 5: Relate the height of buildings to important attributes of the city pattern and to the height and character of existing development.

III. ENVIRONMENTAL SETTING AND IMPACTS

An application for environmental evaluation for the project was filed August 16, 2001. On the basis of an Initial Study published on May 11, 2002, the San Francisco Planning Department determined that an Environmental Impact Report (EIR) was required. The Initial Study determined that the following effects of the project would either be insignificant or would be reduced to a less-than-significant level by mitigation measures included in the project, and thus required no further analysis: land use, visual quality/urban design, population and housing, noise, construction air quality, shadow, utilities/public services, biology, geology/topography, water, energy/natural resources, hazards, and historic/cultural resources. (See Appendix A for the Initial Study.) Therefore, the EIR does not discuss these issues, except as noted below.

Issues found to be potentially significant in the Initial Study are evaluated in this chapter. They include transportation, air quality, and wind; growth inducement is also addressed.
This EIR incorporates land use, visual quality/urban design, and shadow to orient the reader and for informational purposes, although these project impacts were determined in the Initial Study to be less than significant.

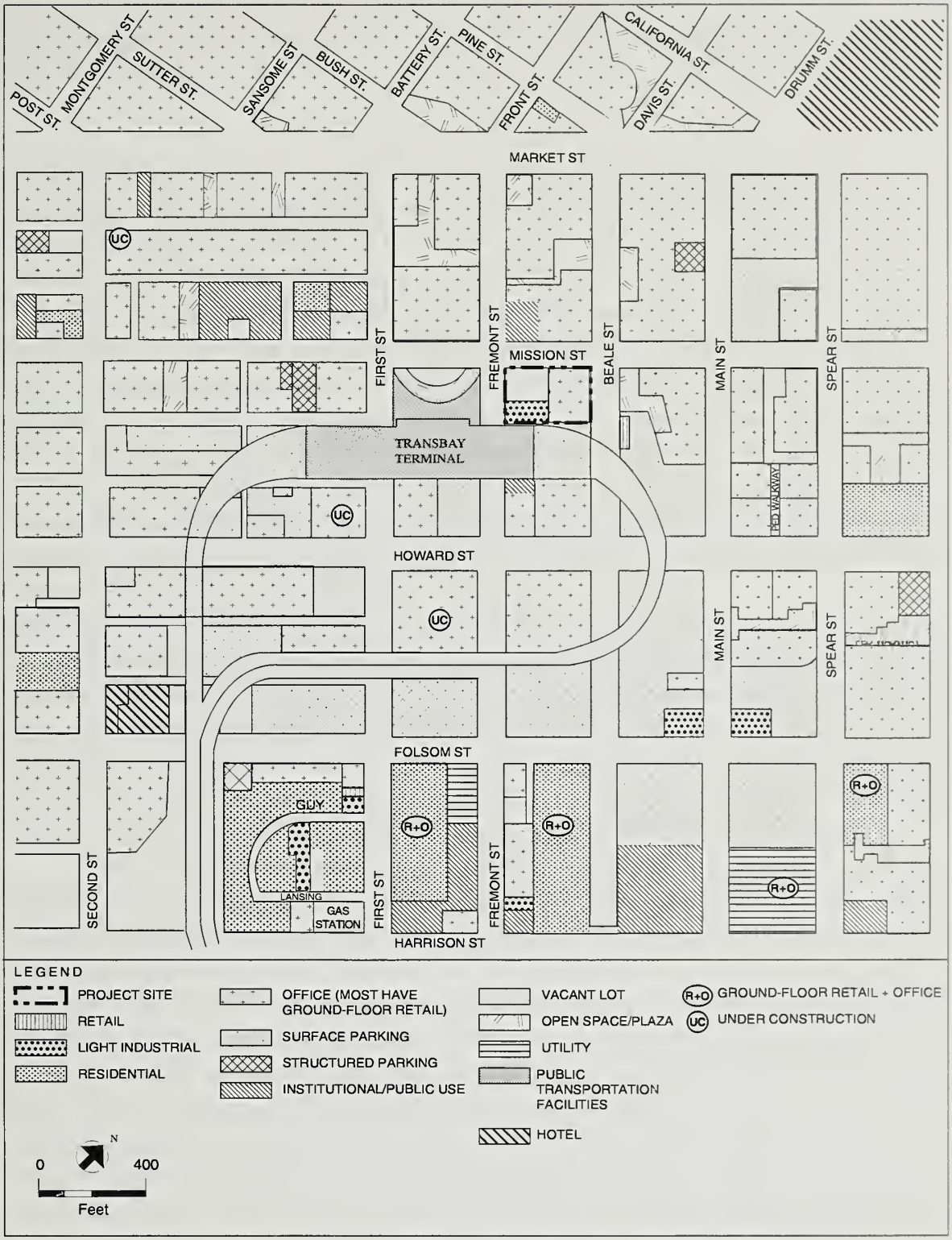
A. LAND USE AND ZONING

As the Initial Study concluded that the project would not have significant land use impacts, this land use discussion is included for informational purposes and to set the project in context.

LAND USE

Existing Land Use in the Vicinity

The project site is located in San Francisco's downtown core, immediately northeast of the San Francisco Transbay Terminal. (See Figure 13: Existing Land Use in the Project Vicinity.) The downtown office district includes the Financial District and the emerging South of Market office development area in which the site is located. In the greater project vicinity, the Yerba Buena Center Redevelopment Area is to the west (west of Second Street); the Rincon Hill neighborhood



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SOURCE: Turnstone Consulting

FIGURE 13: EXISTING LAND USE IN THE PROJECT VICINITY

is about one and one-half blocks to the southeast; and the South of Market neighborhood is to the south and southwest. The project site is also within the proposed Transbay Redevelopment Project Area.

Residential developments in the near and mid-vicinity (within three blocks) of the project site include residential units in the top seven stories of the 350-foot-tall, mixed use development at 388 Market Street about two blocks to the north, Rincon Towers at 101 Spear Street about two blocks to the east, and the high-rise residential portion of Hills Plaza complex three blocks to the southeast. Newer residential developments have also been built recently or are under construction in the project vicinity, especially in the Rincon Hill area, including the recently occupied 226-unit Avalon Towers at 388 Beale Street, the 245-unit residential building under construction at 400 Beale Street, and 200 units recently approved at 331 First Street.

Hotels in the general project vicinity include the Hyatt Regency in Embarcadero Four about three blocks northeast from the site; the Harbor Court at 165 Steuart Street about three blocks east of the site; and the Sheraton Palace at Two New Montgomery Street about four blocks northwest from the site. A hotel is planned in the proposed Transbay Redevelopment Project Area, directly across Fremont Street from the project site. None of these hotels are extended-stay hotels, as proposed for the project.

Land uses in the immediate neighborhood (within a block) of the project site are a mix of commercial (office and retail), institutional (educational), transportation and parking uses. (See Figure 13.) High-rise office above ground-floor retail is the predominant use east of the site.

Across Beale Street and east of the project site, occupying most of the block, is the 417-foot-tall 201 Mission Street office building with ground-floor retail; surface parking is east and south of the 201 Mission Street building and beneath the elevated Transbay Terminal bus ramps that traverse the southwest corner of the block. At the second level, the 201 Mission Street building is connected by an elevated pedestrian bridge across Beale Street to the western sidewalk bordering the project site. Further east of 201 Mission Street is a concentration of high-rise office towers with ground-floor retail space.

High-rise office above ground-floor retail is the predominant use north, east and west of the project site. North of Mission Street, diagonally east of the site, is the 450-foot-tall PG&E office building complex at 245 Market Street; this complex includes ground-floor retail and a private garage and occupies the entire block. Facing the project site are the 328-foot-tall Bechtel office

building with ground-floor retail at 50 Beale Street, and the 45-foot-tall Heald College School of Business and Technology building with ground-floor retail at 350 Mission Street on the block immediately north of the project site. The remainder of that block is occupied by a 476-foot-tall office building at 45 Fremont Street, and a 472-foot-tall office building with ground-floor retail at 333 Market Street. Diagonally across Mission Street to the west, between Fremont and First Streets, are a 600-foot-tall office building with ground-floor retail at 50 Fremont Street, a 55-foot-tall office building with ground-floor retail at 440-456 Mission Street, a 10-foot-tall bank building at 75 First Street, a 318-foot-tall office building with ground-floor retail at 455 Market Street, and a 525-foot-tall office building with ground-floor retail at 425 Market Street.

West of the site are transportation, high-rise office above ground-floor retail, and institutional uses. The Transbay Terminal building and plaza are just west of the project site on the south side of Mission Street between First and Fremont Streets.

The Terminal is a structure of local and regional transportation importance, used by AC Transit East Bay bus service, Muni, and Greyhound bus lines; the Terminal has direct ramps to the Bay Bridge. West of the Transbay Terminal plaza are a 447-foot-tall office building with ground-floor retail at 100 First Street, and a commercial garage. On that block, a site is also approved for a 458-foot-tall office building with ground-floor retail at 555 Mission Street. The Golden Gate University campus is on the north side of Mission Street between First and Second Streets.

Transportation, parking and office uses predominate south of the site. High-rise office above ground-floor retail is the predominant use south beyond the Transbay Terminal. A six- to seven-foot-wide pedestrian path adjoins the project site on the south. Immediately south of this path are the fenced-in San Francisco Transbay Terminal elevated bus ramps. Currently, the area beneath this portion of the elevated bus ramps is used as surface parking. The three-block-long San Francisco Transbay Terminal and ramps are immediately south and west of the project site across Fremont Street. South of the project site and the terminal's elevated bus ramps are a 364-foot-tall office building at 199 Fremont Street, a 35-foot-tall office building at 181 Fremont Street, a 23-foot-tall office building at 183 Fremont Street, and a 45-foot-tall office building with ground-floor retail and daycare at 342 Howard Street on the southern portion of the project block.

The project site is currently occupied by a 68-foot-tall office building over ground-floor retail use at 301 Mission; a 53-foot-tall office building at 124 Beale Street; a 20-foot-tall industrial building used for offices at 129 Fremont Street; and a vacant, fenced lot at 345 Mission Street. The project

is in a transition area between the predominantly high-rise office above ground-floor retail use in the downtown core to the north, east and west; and parking, transportation uses, and lower-rise office and office support buildings to the south and southwest.

Transbay Redevelopment Project

A decade of planning preceded the current efforts to extend Caltrain into the downtown, improve the Transbay Terminal area, and identify replacement solutions for the Transbay Terminal, which does not meet modern seismic safety or space utilization standards. The *Transbay Terminal Improvement Plan*, prepared in January 2001 by the Metropolitan Transportation Commission in conjunction with associated consultants, presents a design concept for a new Transbay Terminal. This plan envisions primarily high-density residential development on publicly owned parcels adjacent to the Terminal and near the Rincon Hill area along Folsom and Beale Streets.[1]

The series of proposed zoning and height district changes in the Transbay area resulting from these planning studies is the subject of the *Transbay Terminal/Caltrain Downtown Extension/Redevelopment Project Draft EIS/EIR* by the City and County of San Francisco, the San Francisco Redevelopment Agency, the Peninsula Corridor Joint Powers Board, and the Federal Transit Administration, published October 2002. This EIS/EIR analyzes three project components: demolition of the existing terminal and construction of a new, multi-modal Transbay Terminal on its site; extension of Caltrain commuter rail service from its current San Francisco terminus at Fourth and Townsend Streets to a new underground terminus underneath the proposed new Transbay Terminal; and a Redevelopment Area Plan that envisions transit-oriented development on publicly owned land in the vicinity of the new Transbay Terminal.

The project site is within the proposed Transbay Redevelopment Plan Area, which covers the area generally bounded by Mission, Main, Spear, Folsom, Essex, Harrison, Second and Minna Streets. (See Figure 14: Boundary of Proposed Transbay Redevelopment Project Area.) The area contains a mix of light industrial, warehousing/distribution, commercial office, live-work, surface parking lots, and residential activities. After the 1989 Loma Prieta earthquake, a substantial portion of this area previously dominated by the Embarcadero Freeway was opened up as a result of freeway demolition. Resulting parcels are now vacant and used for surface parking.

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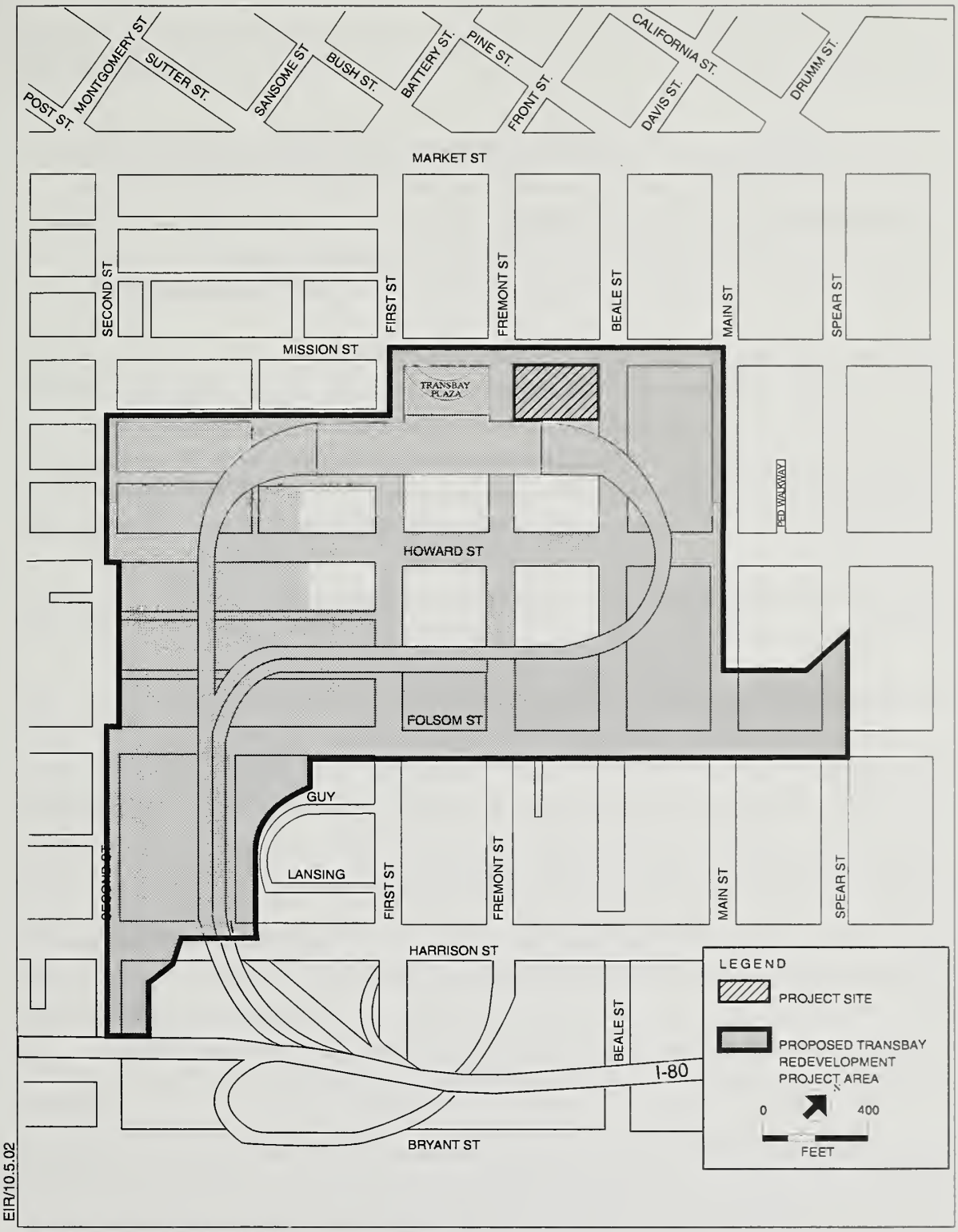
[1] Metropolitan Transportation Commission, *Transbay Terminal Improvement Plan*, January, 2001, pp. 18-19. See also http://www.mtc.ca.gov/projects/transbay/transbay_terminal.htm



EIR/10.5.02

SOURCE: San Francisco Redevelopment Agency, Turnstone Consulting

FIGURE 14: BOUNDARY OF PROPOSED TRANSBAY REDEVELOPMENT PROJECT AREA

The implementation process for a redevelopment plan for the Transbay Terminal area was initiated in 1994 when the Board of Supervisors adopted a formal redevelopment study area. Additional planning and consensus building since that time has resulted in the currently proposed development area. Implementation of a redevelopment plan would require adoption of a redevelopment plan, new zoning and design guidelines, and a capital improvement plan.

Alternative development scenarios are evaluated for the Redevelopment Plan Area in the Transbay DEIS/DEIR. These represent a reasonable range of development that could occur. They envision a mix of transit-oriented residential and commercial development adjoining the Transbay Terminal. The proposal includes the proposed rezoning of the publicly owned land surrounding the Terminal area from P (Public Use) District to C-3-O (Downtown Office) or C-3-O (SD) (Downtown Office Special Development) District. Height and Bulk limits for these would also be increased from their current 80-X designation to 350-S to 400-S under the alternatives being considered. The proposed Redevelopment Plan and zoning changes have not been adopted, and therefore are not official City policy at this time.

Proposed Changes in Land Use on the Project Site

The proposed project would include commercial (office/retail) uses and services in a nine-story structure on the eastern portion of the site; an atrium structure would join the office/commercial space to residential, hotel, and retail/restaurant uses in a 58-story tower on the western portion of the site. The project would have three and one-half levels of subsurface parking.

Office use is the predominant land use in the project area. The proposed residential and hotel uses would be new uses in the immediate project area, similar to such uses in the Rincon Hill and Yerba Buena Center areas and to the south of Howard Street. Planned land uses in the proposed Transbay Redevelopment Project Area include transportation, residential, and hotel uses, including a hotel and plaza across Fremont Street from the project site.

The proposed mixed use development would increase the intensity of existing land uses on the project site, and introduce residential and hotel uses there. The project would be compatible with existing and planned uses in the vicinity, including residential, hotel, retail and office uses existing in the Rincon Hill area and Yerba Buena Center, and hotel and residential uses being planned for the Transbay Redevelopment Project Area. As discussed in the Initial Study, there would be no significant effects related to land use.

ZONING PROVISIONS AND PROJECT CONSISTENCY

The San Francisco Planning Code implements the *San Francisco General Plan*, establishing allowable uses, densities and configurations of buildings, and setting forth procedures and criteria for review of proposed projects.

The project site is in the C-3-O (Downtown Office) Use District (see Figure 15: Use Districts in the Project Vicinity). The C-3-O District, as described in Planning Code Section 210.3, plays a national role in finance, corporate headquarters and service industries, serves as an employment center for the region and consists primarily of high quality office development. The intensity and compactness of building development in this district permits convenient travel by foot and results in a notable skyline. The district is served by City and regional transit.

In the C-3-O District a base floor area ratio (FAR) of 9:1 is permitted, with a maximum 18:1 FAR through the use of transferable development rights (TDR).[2]

The maximum allowable gross floor area for the project site attributable to the FAR is 907,499 gsf with TDR (the lot area, 50,416.6 sq. ft., multiplied by 18, rounded to the nearest square foot). The project would be within this permitted maximum FAR, with a gross floor area of approximately 907,498 gsf, or 18:1 FAR.[3]

The west half of the project site is in a 550-S Height and Bulk District, while the east half is in a 400-S Height and Bulk District (see Figure 16: Height and Bulk Districts in the Project Vicinity). The 550-S and 400-S Height and Bulk Districts permit buildings up to 550 feet and 400 feet, respectively, and govern the dimensions of buildings, calling for setbacks at given heights. The

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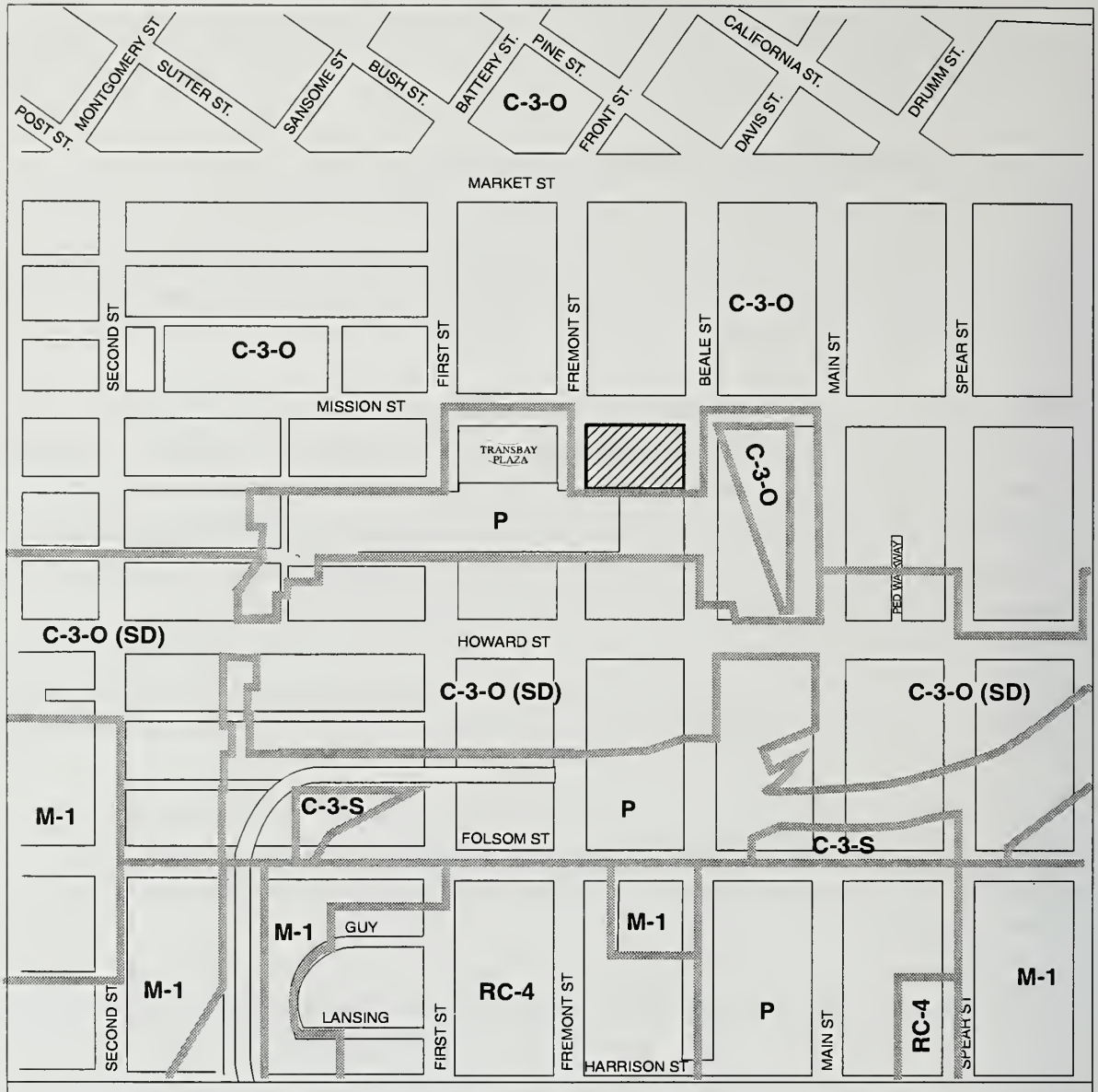
[2] Transferable Development Rights serve as an incentive for historic preservation. A building in a C-3 District, designated under Planning Code Article11 as a Significant or Contributory building or designated under Article 10 as a Landmark, may sell (and transfer) its unused development potential (the difference between its allowable floor area and its actual floor area as built) as TDR to another site (generally within the same C-3 District, with certain exceptions). Transfer of TDR permanently reduces the development potential of the transferring lot while increasing the allowable floor area of the receiving lot, by the amount of TDR transferred. The project would require approximately 453,000 gsf of TDR, which the project sponsor proposes to purchase from multiple sites within the Yerba Buena Center Redevelopment Project Area and C-3 Districts.

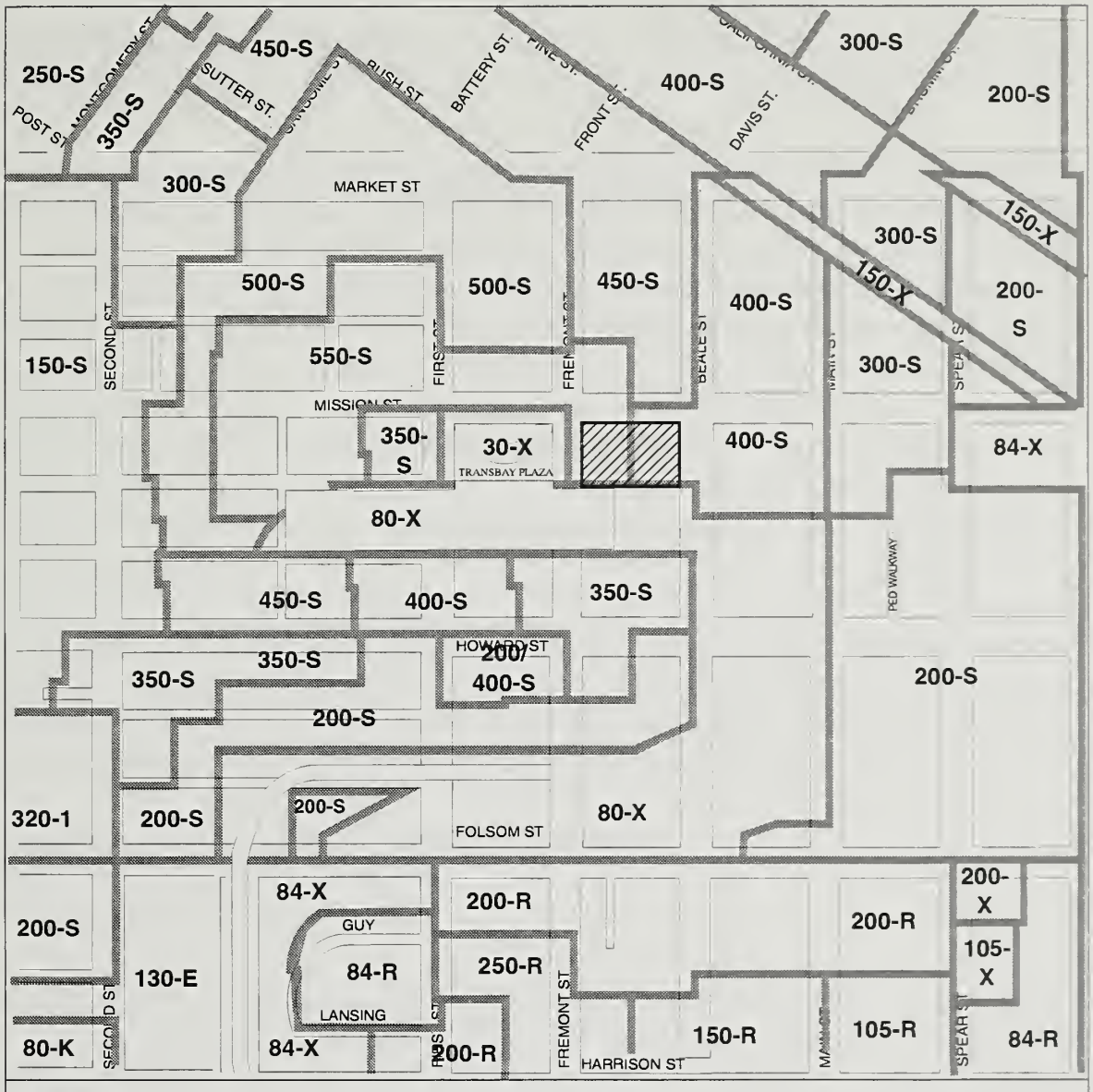
[3] In calculating the project's floor area, about 249,000 sq. ft. of floor area is excluded from the gross floor area of 1,156,500 gsf under Planning Code Section 102.9. This excluded amount includes required and accessory parking and incidental driveways and maneuvering areas, mechanical equipment, ground-floor retail, and public open space.



EIR/1.17.03

SOURCE: San Francisco Planning Code, Turnstone Consulting

FIGURE 15: USE DISTRICTS IN THE PROJECT VICINITY



EIR/10.5.02

SOURCE: San Francisco Planning Code, Turnstone Consulting

FIGURE 16: HEIGHT AND BULK DISTRICTS IN THE PROJECT VICINITY

Planning Code provides for an additional height extension of up to 10 percent and for allowable exceptions from the bulk limits provided that the applicable criteria are met. For the project, the Planning Code requires approval of an upper-tower extension beyond 550 feet and exceptions from the upper-tower bulk limits. These are described in the Project Approvals section of Chapter II, Project Description, pp. 42-45.

B. VISUAL QUALITY AND URBAN DESIGN

The Initial Study for the project determined that the project could not have a significant adverse effect related to visual quality (see Appendix A, Initial Study, p. 13). However, because design-related exceptions pursuant to Planning Code Sections 263.9 (for an upper-tower extension above 550 feet) and 270(d)(3) (for exceptions to upper-tower bulk controls) are being requested under Planning Code Section 309, this EIR discusses visual quality for informational purposes. This section first describes the visual character of the downtown generally and in the immediate vicinity of the project site. This is followed by a discussion of the project's visual compatibility with its surroundings.

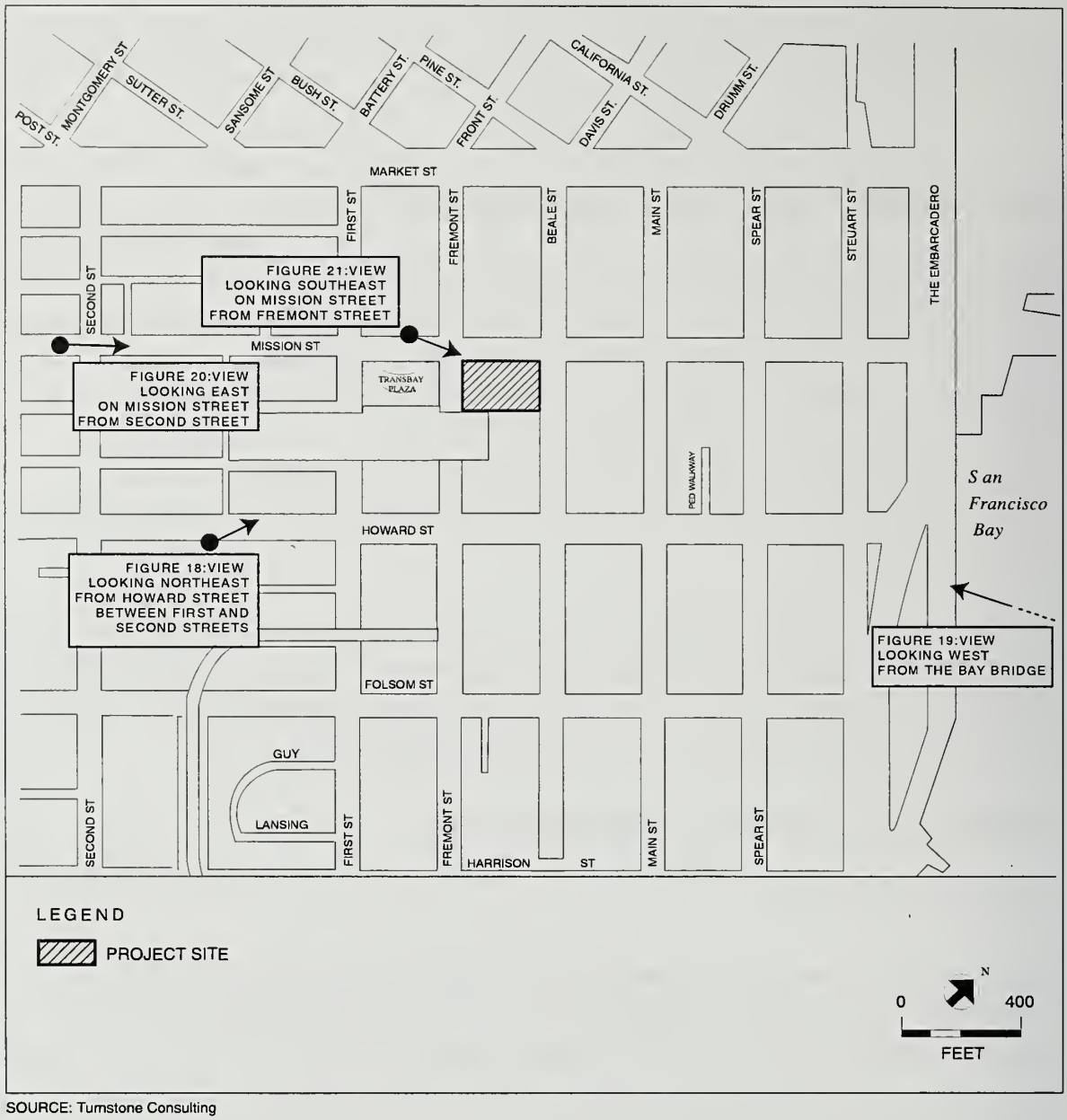
Photographic views from four locations have been prepared to illustrate existing conditions in the project vicinity and at the project site (see Figure 17: Viewpoint Locations). Each existing view (denoted as "A. Existing") in Figures 18-21 is shown alongside a superimposed visual simulation of the proposed project for comparison (denoted as "B. Proposed Project").

EXISTING VISUAL QUALITY AND URBAN FORM

General Downtown Form

A general pattern of densely clustered high-rise development in the downtown core, tapering off to low-rise development at its periphery, characterizes San Francisco's skyline. This compact urban form signifies the downtown as the center of commerce and activity. Yet despite its clarity of form, the downtown high-rise urban form is neither smooth nor uniform. A range of building heights in the downtown creates gaps, peaks, dips and variety within this pattern, allowing taller buildings and building tops to stand out in profile against the sky. This tension between conformity and variety in the skyline results in a readable and recognizable image for San Francisco.

The project site is south of Mission Street at the southern edge of the downtown high-rise core. Immediately to the south and west of the project site, the Transbay Terminal and its ramp system have defined and bounded the edge, serving as a physical and visual barrier. High-rise buildings along this edge are prominent when viewed from the south because building heights tend to drop



EIR/10.5.02

SOURCE: Turnstone Consulting

FIGURE 17: VIEWPOINT LOCATIONS

off abruptly from the Transbay Terminal southward (see Figure 18: View Looking Northeast from Howard Street between First and Second Streets, A. Existing). Within the blocks encircled by the Transbay Terminal, its bus ramp system and the I-80 freeway off-ramps to the south, post-World War II development has been limited. Much of this area is occupied by surface parking and low-rise early Twentieth Century buildings, although several new low- to mid-rise buildings have been constructed, are being constructed, or have been recently approved for this area.

By contrast, east of the project site to The Embarcadero, the southern edge of the downtown core has not been contained by the Transbay Terminal and its bus ramps. Here, the transition from the high-rise downtown core southward is more tapered and gradual. This general effect is particularly evident when this area is viewed from the Bay Bridge approaching the City (see Figure 19: View Looking West from the Bay Bridge, A. Existing).

Immediate Project Vicinity

For the purposes of this discussion, the "immediate project vicinity" generally encompasses buildings facing the Transbay Terminal Plaza as well as buildings facing Mission Street from Fremont Street to Main Street.[1] The area to the south of the Transbay Terminal, although proximate in distance, does not comprise the project site's immediate visual context because of the visual, physical barrier of the Transbay Terminal.[2]

The visual character of the immediate project vicinity is varied. It is primarily defined by the Transbay Terminal and plaza and by dense high-rise development. Further high-rise development is envisioned for this area as most of it is zoned for the highest densities and heights in the City. Low-rise early Twentieth Century buildings, including those at the project site, are also found in this area. Despite this variety, the overall intensity of development in this area and its arrangement within a regular south of Market street grid imparts a general sense of visual

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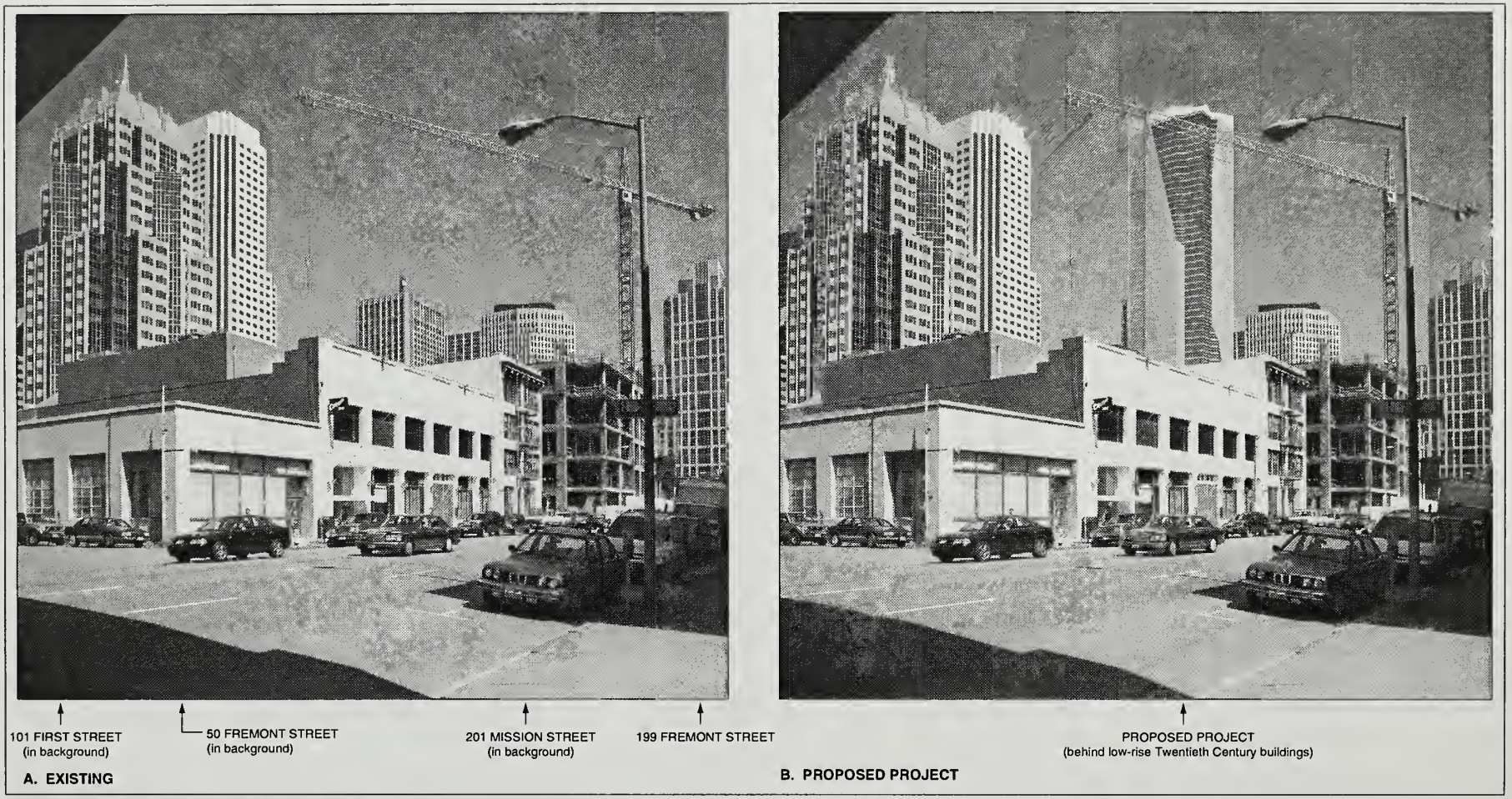
[1] Note that the high-rise building at 45 Fremont Street is discussed as part of the immediate visual context. Although it does not front directly onto Mission Street, its southern facade presents a prominent face to the project site, because the intervening building at 350 Mission Street is a low-rise, four-story building.

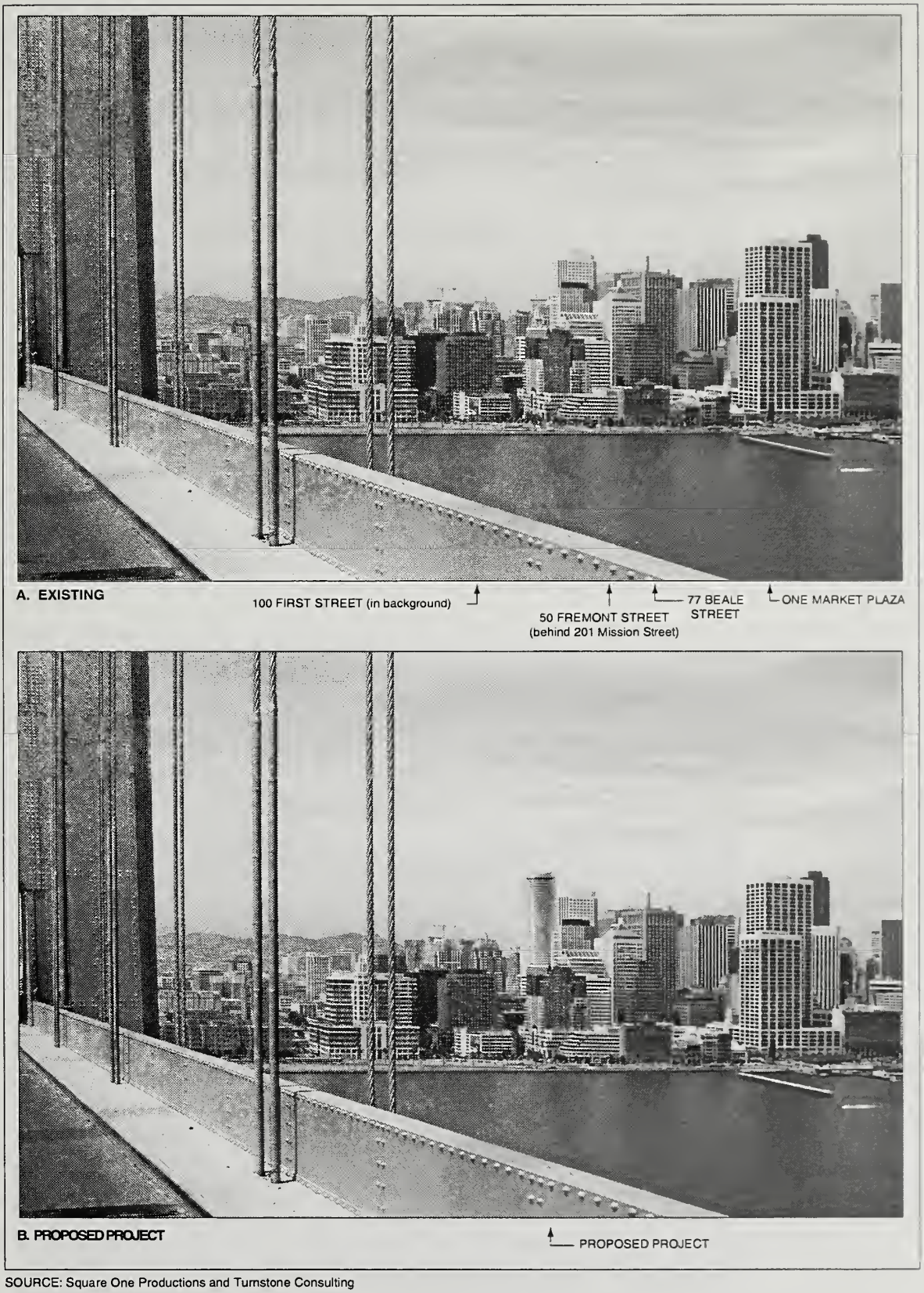
[2] Note that the high-rise building at 199 Fremont Street is discussed as part of the immediate visual context as it is highly visible from the project site despite its separation from the project site by the Transbay Terminal.



EIR/1.17.03

SOURCE: Square One Productions and Turnstone Consulting

FIGURE 18: VIEW LOOKING NORTHEAST FROM HOWARD STREET BETWEEN FIRST AND SECOND STREETS



EIR/10.5.02

SOURCE: Square One Productions and Turnstone Consulting

301 MISSION STREET

2001.0792E

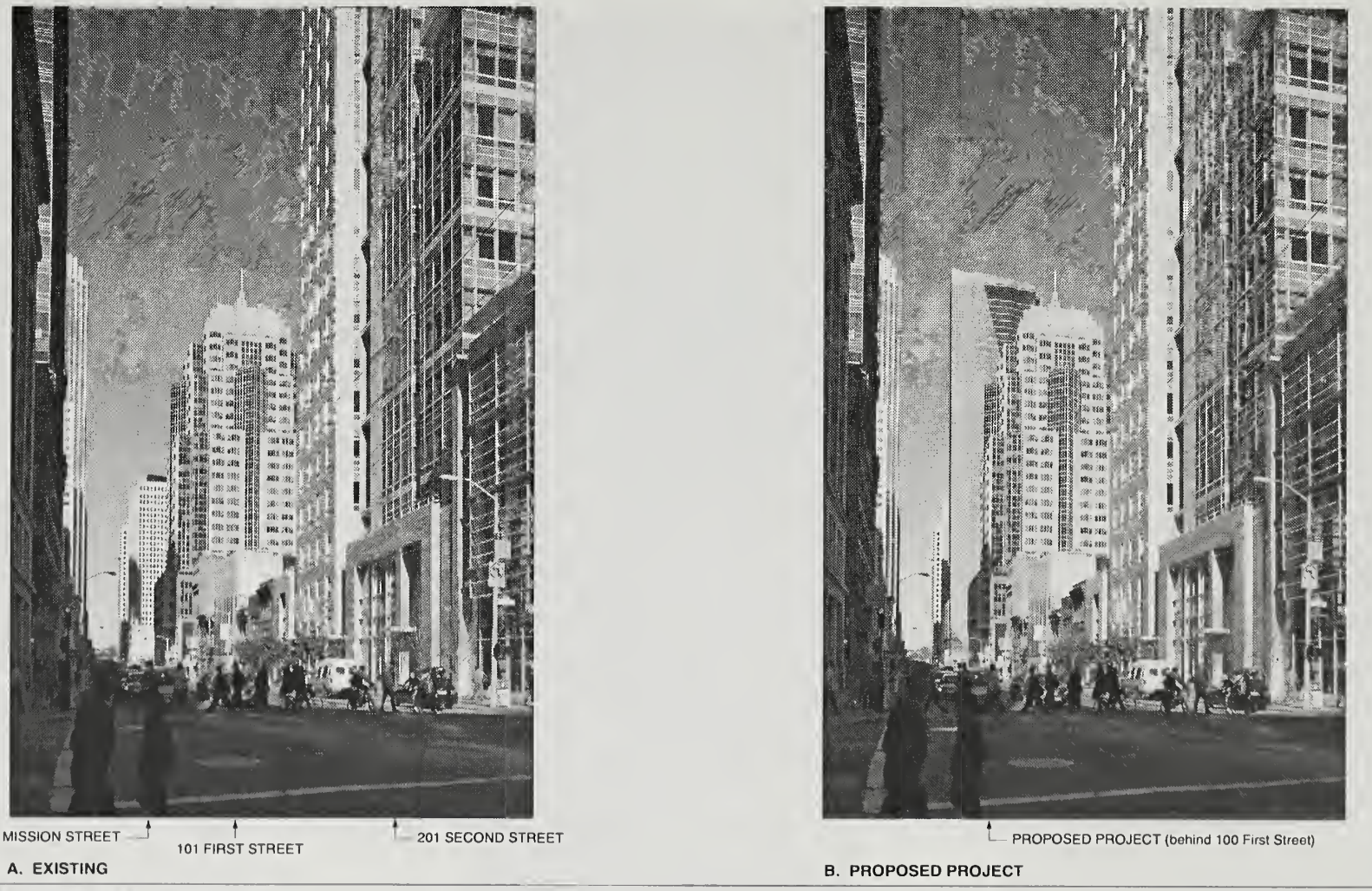
FIGURE 19: VIEW LOOKING WEST FROM THE BAY BRIDGE

coherence and order in the project vicinity (see Figure 20: View Looking East on Mission Street from Second Street, A. Existing).

The Transbay Terminal Plaza is the large rectangular open area immediately west of the project site across Fremont Street, on the north side of the terminal structure. Much of the plaza is occupied by an elevated driveway and loading areas for several Muni bus lines (the Loop). A curved driveway leading to and from Mission Street provides off-street pick-up and drop-off of passengers. Seating and plantings flank a grade-level entrance on Mission Street under the raised driveway. At the southern end of the plaza is the central pavilion of the Transbay Terminal. The terminal building is a low horizontal volume, faced in grey granite (53 feet tall, built 1939). Flanking the central pavilion, enclosed bus ramps straddle the block and bridge Fremont and First Streets, creating a wall-like visual and physical barrier between the area to the north of the terminal and the area to its south.

High-rise buildings of various heights surround the project site. To the west, across the Transbay Terminal Plaza from the project site is 100 First Street (100 First Plaza, 384 feet tall, built 1988). Northwest of the project site, diagonally across the Mission/Fremont intersection, is 50 Fremont Street (50 Fremont Center, 600 feet tall, built 1983). North of the project site, across Mission Street and beyond the low-rise building at 350 Mission Street, is 45 Fremont Street (45 Fremont Center, 475 feet tall, built 1978), and 50 Beale Street (the Bechtel Building, 328 feet tall, built 1967). Northeast of the project site, diagonally across the Mission/Beale intersection, is 77 Beale Street (PG&E Building, 469 feet tall, built 1970). To the east of the project site, across Beale Street, is 201 Mission Street (the Providian Financial Building, 417 feet tall, built 1983). South of the project site, and separated from the project site by the Transbay Terminal and bus ramps that bisect the block at its mid-section, is 199 Fremont Street (364 feet tall, built 2000).

These high-rise buildings are varied in form. They may be set back from the surrounding streets by planted areas or plazas (for example, 201 Mission Street and 77 Beale Street) or built to the property line, continuing the street wall (50 Beale Street and 50 Fremont Street). They may be simple and box-like in massing (77 Beale Street, 50 Beale Street, and 45 Fremont Street), asymmetrical in form (201 Mission Street and 199 Fremont Street), or have a symmetrical and tiered "wedding cake" form (50 Fremont Street and 100 First Street). They are flat topped (50 Beale Street) or topped with a distinct termination (100 First Street and 199 Fremont Street). These high-rise buildings in the project vicinity also present a variety of exterior treatments.



EIR/10.05.02

SOURCE: Square One Productions and Turnstone Consulting

FIGURE 20: VIEW LOOKING EAST ON MISSION STREET FROM SECOND STREET

They include rough-textured (77 Beale Street and 100 First Street) and smooth-skinned buildings (45 Fremont Street and 50 Fremont). They are clad in masonry panels (50 Fremont), aluminum panel (45 Fremont), or metal and glass curtain wall (50 Beale Street), or may employ a variety of materials and exterior treatments (100 First Street).

Despite a high degree of visual heterogeneity among the high-rise buildings in the immediate project vicinity, general patterns are discernible. Ground floors are generally transparent and are often arcaded (deeply set back from the facade plane behind piers).[3] Surface materials are generally nonreflective[4] and light in hue.[5] Exterior treatment is generally vertical in expression.[6]

The project site is occupied by three low-rise, early Twentieth Century buildings: 301 Mission Street, a six-story, brick-clad building (built 1908); 124 Beale Street, a six-story, concrete building (built 1930); and 129 Fremont Street, a two-story concrete building (built 1929) (see Appendix A, Initial Study, p. 43, for building descriptions). The northwest corner of the site is vacant and fenced (see Figure 21: View Looking Southeast on Mission Street from Fremont Street, A. Existing).

Some other early Twentieth Century buildings in the immediate project vicinity are 350 Mission Street, a five-story, masonry-clad building at the northeast corner of Mission and Fremont Streets (built 1923); 450 Mission Street, a five-story, masonry-clad building at the northeast corner of Mission and First Streets (1920), and 500 Mission Street, a six-story, masonry-clad building at the northwest corner of Mission and First Streets (built 1907).

A pedestrian bridge across Beale Street lands on the sidewalk at the northeast corner of the project site. This bridge was originally constructed to allow users of the 201 Mission Street

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[3] 50 Fremont Street, 77 Beale Street, and 199 Fremont Street are exceptions. Their ground floors extend to the property line.

[4] 50 Fremont Street is an exception. Its windows are reflective glass.

[5] 50 Beale Street is an exception. It has bronze colored mullions and dark tinted windows.

[6] 45 Fremont Street is an exception. Its banded fenestration pattern conveys a horizontal "stacked" appearance.

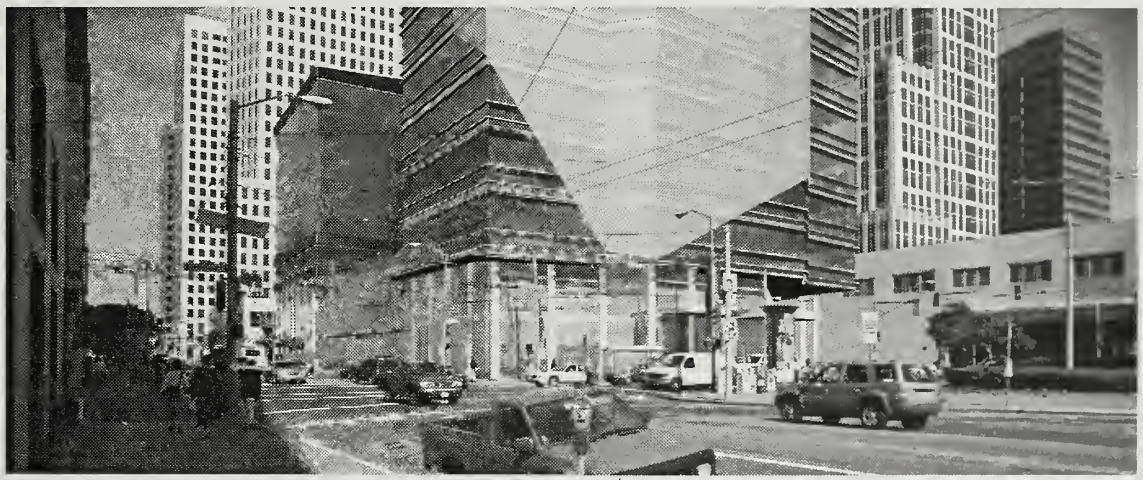
A. EXISTING

201 MISSION STREET

PROJECT SITE
(showing existing 301 Mission Street and 129 Fremont Street buildings)

199 FREMONT STREET

TRANSBAY TERMINAL AND PLAZA



B. PROPOSED PROJECT

PROPOSED PROJECT
(showing offices, atrium and lower tower floors)

EIR/10.5.02

SOURCE: Square One Productions and Turnstone Consulting

FIGURE 21: VIEW LOOKING SOUTHEAST ON MISSION STREET FROM FREMONT STREET

building to safely and conveniently cross Beale Street when Beale Street served an on-ramp to the I-80 Freeway; the bridge is still used. The bridge forms a visual barrier blocking views along Beale Street. The pedestrian bridge's escalator and landing block visual access to the Beale Street facade at ground level. The project sponsor has had discussions with the owner of 201 Mission Street regarding removal of the bridge. No conclusion has been reached. Removal of the pedestrian bridge, if done in the future, would open views along Beale Street and would remove a physical and visual barrier to ground-floor retail uses and pedestrian circulation.

PROPOSED CHANGES IN VISUAL QUALITY ON THE PROJECT SITE

Project Design

The project would have three main structural, functional, and visual elements: a 58-story, 605-foot-tall tower on the corner of Mission and Fremont Streets; a triple-height, 43-foot-tall, glass-enclosed central atrium; and a nine-story, 125-foot-tall office element on the eastern portion of the site. The project design would be contemporary in style.

The tower's massing would appear slender in proportion with a 1:13.6 width-to-height ratio (169 feet wide at its widest diagonal, by 605 feet tall, covering 13,774 gsf of its 50,000-sq.-ft. site). The proposed tower shape would be uniform in plan for the entire height of its shaft, rather than composed of successively setback tiers as generally called for under the applicable "S" District bulk limits. The surface of the tower would be articulated in varied vertical planes intended to further reduce the tower's apparent bulk, add visual interest, and emphasize the slenderness and verticality of the tower. The tower would be terminated at its top by angular peaks that would screen rooftop mechanical equipment and are intended to give the building a distinctive profile. Except at ground level, the tower's structural piers would not be visible on the exterior. The tower would be sheathed in a glass and aluminum curtain wall.

The 43-foot-tall central atrium would be enclosed at its north and south ends by clear glazing to maximize light and transparency. The atrium space would be spanned with steel trusses and its ceiling would be glazed with clear glass. The atrium would open onto an outdoor garden terrace

at the rear of the project site. The atrium and garden terrace would be open to the public and would include seating, plantings, and public art.[7]

At the east end of the site, the nine-story office component's proportions and exterior expression would contrast with those of the tower. The office component's base would be clad in a glass and aluminum-framed storefront system. Although expressed on the exterior as part of the base, the second floor of the office tower would be generally identical to the office floors above in plan. Along Mission Street, the ground floor would be recessed and devoted to retail. On the exterior, the upper office building volume would be differentiated from the base by a contrasting curtain wall pattern.

VIEWS OF THE PROPOSED PROJECT

From the Southwest Along Howard Street

When viewed from the south and west of the project site, the tower would rise from behind the low, early Twentieth Century buildings south of the Terminal (see Figure 18: B. Proposed). Along this edge of the downtown high-rise core, there is little transition between these lower buildings and the taller buildings to the north. The project is seen in the context of other nearby high-rise buildings: 100 First Street, 50 Fremont Street, and 201 Mission Street. The project would be similar in height to the 50 Fremont Street building immediately to the north and west of the proposed building. The 364-foot-tall 199 Fremont Street building is south and east of the tower and begins a gradual downward step from the downtown core southward and eastward toward the Bay. The proposed building would be seen amid the variety of building forms and surface treatments of nearby high-rise buildings, and would add a new prominent form in this view.

From the Bay Bridge

When viewed from the east from the bridge, the proposed building would introduce a tower at the southern edge of a dense cluster of high-rise buildings (see Figure 19: B. Proposed). The proposed building would be seen next to the 50 Fremont Street building which, at 600 feet, is

[7] A rooftop terrace is proposed above the 58-story tower. This terrace would not be accessible to the public.

similar to the proposed project in height. Its location at the Transbay Terminal edge of the downtown core, height and atypical sculptural massing would make the project stand out in relation to its neighbors as a prominent and recognizable building on the skyline. Rather than effectuating a gradual southward tapered decline, as is evident to the east of the project site in the picture foreground, the proposed 301 Mission Street building would extend the dense high-rise downtown core incrementally southward.

From the West on Mission Street

When viewed from the west from Mission Street, the proposed 605-foot-tall building would be a prominent addition to the skyline (see Figure 20: B. Proposed). The proposed building would be seen within the context of the South of Market street grid system and would not obstruct any view corridor down streets in the area. The building would be substantially taller than 100 First Street (the 384-foot-tall building in the foreground) and the low, mid-block, early Twentieth Century buildings that currently line the south side of Mission Street, between First and Second Streets. With the comparably tall, 600-foot 50 Fremont Street tower, the proposed building would frame the view down Mission Street to its terminus at The Embarcadero.

From the Opposite Corner of Mission and Fremont Streets

When viewed from the corner of Mission and Fremont Streets, diagonally across the intersection from the project site, the project's relation to the streetscape may be seen (see Figure 21: B. Proposed). The project would include features that are associated with early Twentieth Century buildings to unite the building with its urban surroundings and to convey a sense of human scale at street level as follows. A horizontal three-story "base" element is articulated and distinguished from the floors above. The base element would extend horizontally, intended to create continuity with the adjacent horizontal base at 201 Mission Street to the east. The project's base would be high and transparent. Although recessed from the property line at the atrium entrance and at the northwest corner, the base element generally continues the streetwall along Mission Street. At the tower's ground floor and second floor, the tower's base would be differentiated by exposing the structural piers supporting the tower. Transparent glazing would be recessed between the piers. Projecting steel and glass awnings at the lower floors are intended to reinforce the horizontal articulation of the base element and provide a sense of human scale at street level by interrupting the eye as it travels up the building.

THE PROJECT CONSIDERED WITH THE PROPOSED TRANSBAY REDEVELOPMENT PROJECT [8]

The current concept for the Transbay Redevelopment Project envisions a four-level, three-block-long, multimodal transportation terminal occupying roughly the same ground position as the existing Transbay Terminal. Under one alternative currently under consideration, the southern and eastern portions of the existing bus ramp loop would be eliminated and the parcels currently occupied by these ramps would be rezoned from P (Public Use) District to C-3-O (Downtown Office) or C-3-O (SD) (Downtown Office Special Development) District. Height and Bulk limits for these would also be increased from their current 80-X designation to 350-S to 400-S under the alternatives being considered. North of the Transbay Terminal, a landscaped public plaza would occupy the western portion of the existing Transbay Terminal Plaza, at the southeast corner of Mission and First Streets. A 400- to 550-foot-tall hotel building is envisioned for the eastern portion of the existing plaza, directly across Fremont Street from the project site.

Development of the Transbay Terminal and the surrounding area consistent with the proposed Transbay Redevelopment Project would shift the existing edge of the downtown high-rise urban form. The clearly defined northern boundary of the Transbay Redevelopment Area would, over time, move southward as high-rise development occurs south of the terminal.

North of the Terminal, the potential hotel in the Transbay Redevelopment Project Area with the proposed building at 301 Mission Street would be seen within the context of the pattern of vertical forms lining both sides of Mission Street. When viewed from the west on Mission Street, the potential Transbay hotel tower, if built as planned, would obscure part of the proposed project's volume and would provide a transition in height from the shorter 100 First Street building to the proposed project.

CONCLUSION

The proposed project would result in a visual change because it would demolish three existing low-rise buildings, dating from the 1900s-1930s, to construct a substantially larger three-part

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[8] *Transbay Terminal / Caltrain Downtown Extension / Redevelopment Project Draft Environmental Impact Statement / Draft Environmental Impact Report / Draft Section 4(f) Evaluation*, State Clearinghouse No. 95063004 / 2000.048E, October 2002.

development: a 58-story tower and a 9-story office component, linked by an atrium, with a port cochere and a four-level subsurface garage. It would thus increase the scale of development of the project site. The existing buildings are an approximately 68-foot-tall (six-story), brick-clad office building with ground-floor retail uses at 301 Mission; an approximately 53-foot-tall (six-story), stucco-finish office building at 124 Beale Street; and an approximately 20-foot-tall (two-story) industrial building at 129 Fremont Street. A vacant and fenced lot occupies 345 Mission Street, the remaining lot on the project site. The vacant lot was formerly occupied by a 100-foot-tall, nine-story building, damaged in the Loma Prieta earthquake in 1989 and subsequently demolished. Thus, the project would include infill development of a lot vacant for 13 years.

The project site is at the southern edge of the downtown high-rise core, where the Transbay Terminal and its bus ramps bound the downtown and form a physical and visual barrier against southward development. This edge is generally characterized by a lack of transition in building heights from the Terminal southward. The proposed project tower, along with other recent developments south of Market, would extend the downtown high-rise core southward.

San Francisco's downtown skyline is composed of a variety of building heights. Peaks, dips and gaps in the general pattern create a varied and recognizable City skyline. The proposed 605-foot-tall building would be taller than most of the high-rise buildings in the immediate project vicinity. It would be within the general height range of others (like 45 Fremont at 475 feet, and 77 Beale Street at 469 feet) and would be similar in height to the adjacent 600-foot-tall 50 Fremont Street. In an area zoned for the highest densities and height limits in San Francisco, the building would be within the range of heights zoned for and anticipated for the area. Proposed to be among the tallest of San Francisco's buildings at 605 feet, the proposed building would be within the overall range of heights of the downtown and the project vicinity.[9]

High-rise buildings in the downtown and project vicinity are varied in form. The proposed building would introduce a new form. Surrounding high-rise buildings are widely varied in exterior surface treatment; however, they are generally nonreflective, light in tone and vertical in expression. While buildings in the project vicinity vary with respect to their relationship to the

[9] The five tallest buildings in San Francisco are: 600 Montgomery Street (Transamerica Pyramid, 853 feet, built 1969); 555 California Street (Bank of America Center, 779 feet tall, built 1969); 345 California Street (California Center, 695 feet tall, built 1986); 50 Fremont Street (50 Fremont Center, 600 feet tall, built 1983); and 101 California Street (600 feet tall, built 1982).

street, there is an overall pattern of ground-floor transparency and maintenance of a street wall. The proposed project would be consistent with these general patterns, incorporating design features intended to create continuity with its surroundings and a sense of human scale at street level, as called for in the Downtown Plan Area Plan of the San Francisco General Plan. The proposed project would be a dramatic change in the visual character of the project vicinity from the existing low-rise, early-Twentieth Century buildings that currently occupy the site. However, although visual quality is subjective, given that the project would be part of a varied group of high-rise buildings and within allowable height and bulk for the site, the proposed building would not result in a substantial, demonstrative, adverse aesthetic impact; nor would it degrade the character of the site and its surroundings.

The proposed building envelope would be consistent with plans for the proposed Transbay Terminal Redevelopment Project Area. Development of the area south of the Transbay Terminal under proposed increased height limits would shift the dense high-rise downtown core southward. The proposed project at some point would no longer occupy the edge of the downtown high-rise form. Although the proposed building would stand out prominently among its neighboring buildings, in light of the above, as noted in the Initial Study for the project (Appendix A), the proposed project would not have a significant impact regarding visual quality and urban design.

C. SHADOW AND WIND

SHADOW

Planning Code Section 295, adopted in 1984 pursuant to voter approval of Proposition K, generally prohibits the issuance of building permits for structures over 40 feet in height that would cause significant new shade on open space under the jurisdiction of, or designated to be acquired by, the Recreation and Park Commission unless the Planning Commission, in consultation with the General Manager of the Recreation and Park Department, determines that the shade would not have a significant impact on the use of such property. Public parks that were analyzed for potential shadow impacts under Planning Code Section 295 include the Chinese playground; Embarcadero Plaza I (Justin Hermann Plaza); Embarcadero Plaza II; Maritime Plaza; Portsmouth Square; St. Mary's Square; and Union Square.[1] The Initial Study (Appendix A, pp. 22-23) determined that the project would not have a significant shadow effect under Planning Code Section 295 because the project would not newly shade open space under the jurisdiction of the Recreation and Park Commission (see Appendix B, Determination of Compliance with Planning Code Section 295: Shadows on Recreation and Park Commission Property).

This section describes the project's shadow effects on publicly owned or controlled open space areas ("public open space") that are not subject to Planning Code 295; on publicly accessible open space areas on privately owned land ("publicly accessible open space"); and on sidewalks.

Existing Conditions in the Project Vicinity

The project site is located in the southern part of San Francisco's downtown core. The downtown area is densely developed and high-rise buildings are typical. Open space in the vicinity of the project site consists of public open space, and publicly accessible, privately owned open space, and sidewalks. Public open space near the site consists of the landscaped plaza at the entrance to the Transbay Terminal building on Mission Street between Fremont and First Streets; and Rincon Park, under construction on The Embarcadero between Howard and Harrison Streets. The locations of public and publicly accessible open space near the project site are shown in

[1] A copy of the results of the shadow analysis is on file with the San Francisco Planning Department, 1660 Mission Street, and is available for review by appointment as part of the project file.

Figure 22: Nearby Public and Publicly Accessible Open Space Within Area of Potential Project Shadow.

Project Shadow on Public and Publicly Accessible Open Space in the Vicinity

New project-generated shadow would reach public open space and publicly accessible open space west, north, and east of the site at certain times throughout the year and over the course of the day. Public open space that would be affected by new project-generated shadow consists of Transbay Terminal Plaza and Rincon Park. Transbay Terminal Plaza has sidewalks, benches, and landscaping south of the crescent-shaped Mission Street vehicle pick-up/drop-off area. Project-generated new shadow would be cast in the northeast corner of the public open space at Transbay Terminal Plaza during the morning in June. By 10:00 a.m. project-related shadows would be limited to the sidewalk fronting the open space. Rincon Park is a three-acre waterfront park.[2] Portions of Rincon Park would be shaded during the last hour before sunset from mid-August through mid-October and mid-February through mid-April. During early evening hours this space is shaded by existing buildings.

Project shadow would be cast on four publicly accessible, privately owned open spaces. Bechtel Plaza at 50 Beale Street, between Market and Mission Streets, contains seating, landscaping, and a pedestrian walkway leading from the plaza toward Fremont Street. The project would add new shadow to the plaza during the early noon hour in summer and fall. The One Market Street South Plaza, on Mission Street between Steuart and Spear Streets, has seating, movable tables and chairs, and landscaping. The project would cast net new shadow on this area for brief periods in the midafternoon from November through January. It would not cast any shadow on the plaza during the noon hour when the space is most heavily used. The open space at 201 Mission Street, located along Beale Street, contains movable tables and chairs, and landscaping. The project would create net new shadow on this area briefly in the midafternoon throughout the year. The open space would not be shaded by the project during the noon hour. The portion of the 201 Mission Street open space on Main Street would not be shaded by the project at any time. One open area at 77 Beale Street fronts Beale Street and one area fronts Mission Street. The Beale Street area is paved and surrounded by fixed planter boxes. The Mission Street area is also paved and has four concrete benches. The project would create new shadow on the Beale Street area

[2] Rincon Park is a public open space located on land leased by the San Francisco Redevelopment Agency from the Port of San Francisco. It is being privately developed as part of the Gap. Inc. Headquarters project and will be maintained by the Redevelopment Agency.

LEGEND

1. TRANSBAY TERMINAL PLAZA
2. RINCON PARK
3. BECHTEL PLAZA (50 BEALE STREET)
4. ONE MARKET: SOUTH PLAZA
5. 201 MISSION STREET
6. 77 BEALE STREET
7. 100 FIRST STREET
8. 555 MISSION STREET (PROPOSED)
9. 554 MISSION STREET
10. GOLDEN GATE UNIVERSITY PLAZA
11. 575 MARKET STREET
12. 525 MARKET STREET
13. 50 FREMONT STREET
14. 1 FRONT STREET
15. 101 CALIFORNIA STREET
16. 50 CALIFORNIA STREET
17. 45 BEALE STREET (PG&E HEADQUARTERS)
18. 123 MISSION STREET
19. RINCON PLAZA
20. 221 MAIN STREET
21. 2 FOLSOM STREET (GAP, INC.)
22. 345 SPEAR STREET (HILLS PLAZA)
23. 199 FREMONT STREET
24. FOUNDRY SQUARE (UNDER CONSTRUCTION)

PROJECT SITE

EIR/10.5.02

SOURCE: Turnstone Consulting

FIGURE 22: NEARBY PUBLIC AND PUBLICLY ACCESSIBLE OPEN SPACE WITHIN AREA OF POTENTIAL SHADOW

briefly during the noon hour in midwinter and during the early afternoon in fall and spring. The Mission Street area would be shaded by the project briefly during part of the noon hour in midwinter and spring and in the early afternoon in fall. The project would not shade the area in summer.

Publicly Accessible Open Space in the Vicinity that Would Not Be Shaded by the Project

A number of publicly accessible open spaces north and northwest of the project site, such as the Golden Gate entry plaza (536 Mission Street), and the plazas at 50 Fremont Street and 101 California Street, and various other open spaces north and south of Market Street, are sited between densely developed and multi-story and high-rise buildings. Most open space in this area is already shaded by these intervening buildings during the times and days of the year when new project-generated shadow could reach them. West of the project site, the podium-level open space at 100 First Street; the plaza location at 555 Mission Street (approved, not yet under construction); and the plaza at 554 Mission Street are similarly shaded by other structures under existing conditions.

The project would not cast new shadow on most open spaces southeast of the project site. Project-generated shadow would extend in a southeastern direction during the late afternoon and early evening hours of the summer months. The plazas at 123 Mission Street and Rincon Plaza are surrounded by adjacent buildings and are already in shade during times when new project-generated shadow could reach them. Similarly, the plazas at the Gap Inc. Headquarters and Hills Plaza are shaded by the surrounding buildings during the times when new, project-generated shadow could reach these spaces. The open space at 221 Main Street is located southeast of the project site. Project-generated shadow would reach this open space during the late afternoon and early evening hours of the summer months; however, the project would not cast new shadow, due to existing shadows that are cast by intervening buildings during the same times throughout the year. The approximately 600-foot-tall 50 Fremont Street building is located on the northwest corner of Mission and Fremont Streets; it casts shadow on the 221 Main Street open space during the same hours and months of the year that the proposed tower could shade it.

Several nearby publicly accessible open spaces are located beyond the reach of new project-generated shadow. These spaces include four plazas at the corners of the First and Howard Streets intersection (approved, not yet all under construction) in the Foundry Square project and the plaza at 199 Fremont Street.

Shadow effects of the project, including effects on the above open spaces, are shown in Figures 23-26, beginning on p. 81.

Project Shadow at Selected Times of Day and Year

The analysis includes shadow cast by existing buildings and the project on sidewalks and publicly accessible open space in the project area. Shadow patterns for the project are shown for 10:00 a.m., noon and 3:00 p.m. for the four seasons: the winter solstice, when the sun is at its lowest; the summer solstice, when the sun is at its highest; and during the spring and fall equinoxes, when the sun is at its midpoint.[3] Sunlight conditions from June 21 through December 21 are mirrored from December 21 to June 21, allowing for the adjustment of Daylight Savings Time. Figures 23-26 depict shadow impacts at a 'snapshot' moment in the range throughout the year.

Shadows created by existing buildings and structures are shown in light grey. The maximum extent of the proposed project's shadow, shown as though there were no existing intervening buildings, is outlined by a heavy black line. Within this outline, the areas that would not otherwise be shadowed but for the project ("new shadow") are depicted in dark grey. Open spaces are highlighted with a pattern.

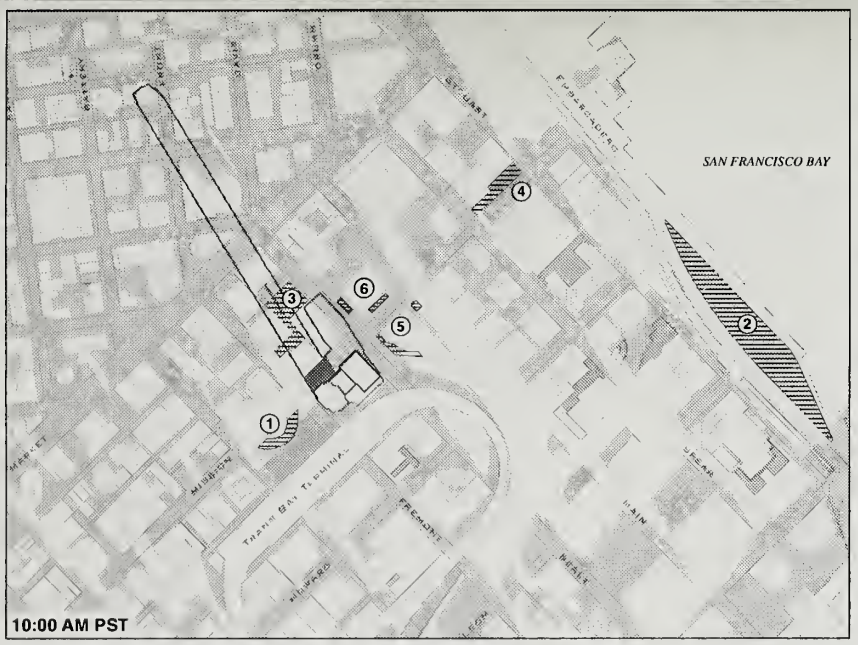
December 21

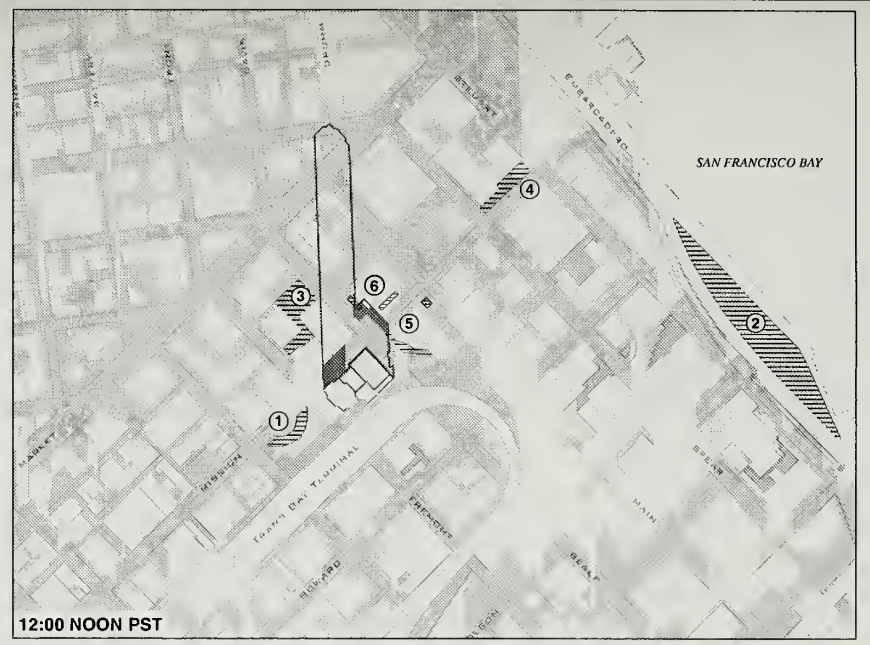
At 10:00 a.m. on December 21, the project would create new shadow on approximately 150 linear feet of the north and south sidewalks in the 300 block of Mission Street (see Figure 23: Shadow Patterns on December 21).

At noon, the project would create net new shadow on approximately 150 linear feet of the north and south sidewalks in the 300 block of Mission Street; on about 35 linear feet of the east sidewalk on Beale Street north of Mission Street, as well as the paved open area at 77 Beale Street; and on approximately 20 feet of the south and north sidewalks in the 200 block of Mission Street.

At 3:00 p.m., the project tower would create new shadow on the southern plaza of One Market Street located along Mission Street, an area of approximately 50 feet by 300 feet. The project

[3] For this analysis, Pacific Standard Time is used in March and December, and Pacific Daylight Time is used for June and September.





DECEMBER 21

- EXISTING SHADOWS
- NEW PROJECT SHADOWS
- BOUNDARY OF SHADOW FROM PROPOSED PROJECT
- PUBLIC AND PUBLICLY ACCESSIBLE OPEN SPACE

NEARBY OPEN SPACE

1. TRANSBAY TERMINAL
2. RINCON PARK
3. BECHTEL PLAZA (50 BEALE STREET)
4. ONE MARKET : SOUTH PLAZA
5. 201 MISSION STREET
6. 77 BEALE STREET

N

0 600

Feet

SOURCE: CADP, Turnstone Consulting

301 MISSION STREET

2001.0792E

FIGURE 23: SHADOW PATTERNS ON DECEMBER 21
(10 a.m., Noon, 3 p.m. PST)

2.07.03

would create new shadow on about 500 linear feet of the north sidewalk on Mission Street between Main Street and The Embarcadero, and on approximately 50 linear feet of the south sidewalk in the 100 block of Mission Street. The shadow extends to Pier 2.

March 21

At 10:00 a.m. on March 21, the project would create net new shadow on about 600 linear feet of the east sidewalk on Fremont Street, between Market and Mission Streets; and on approximately 200 linear feet of the south sidewalk in the 300 block of Mission Street (see Figure 24: Shadow Patterns on March 21).

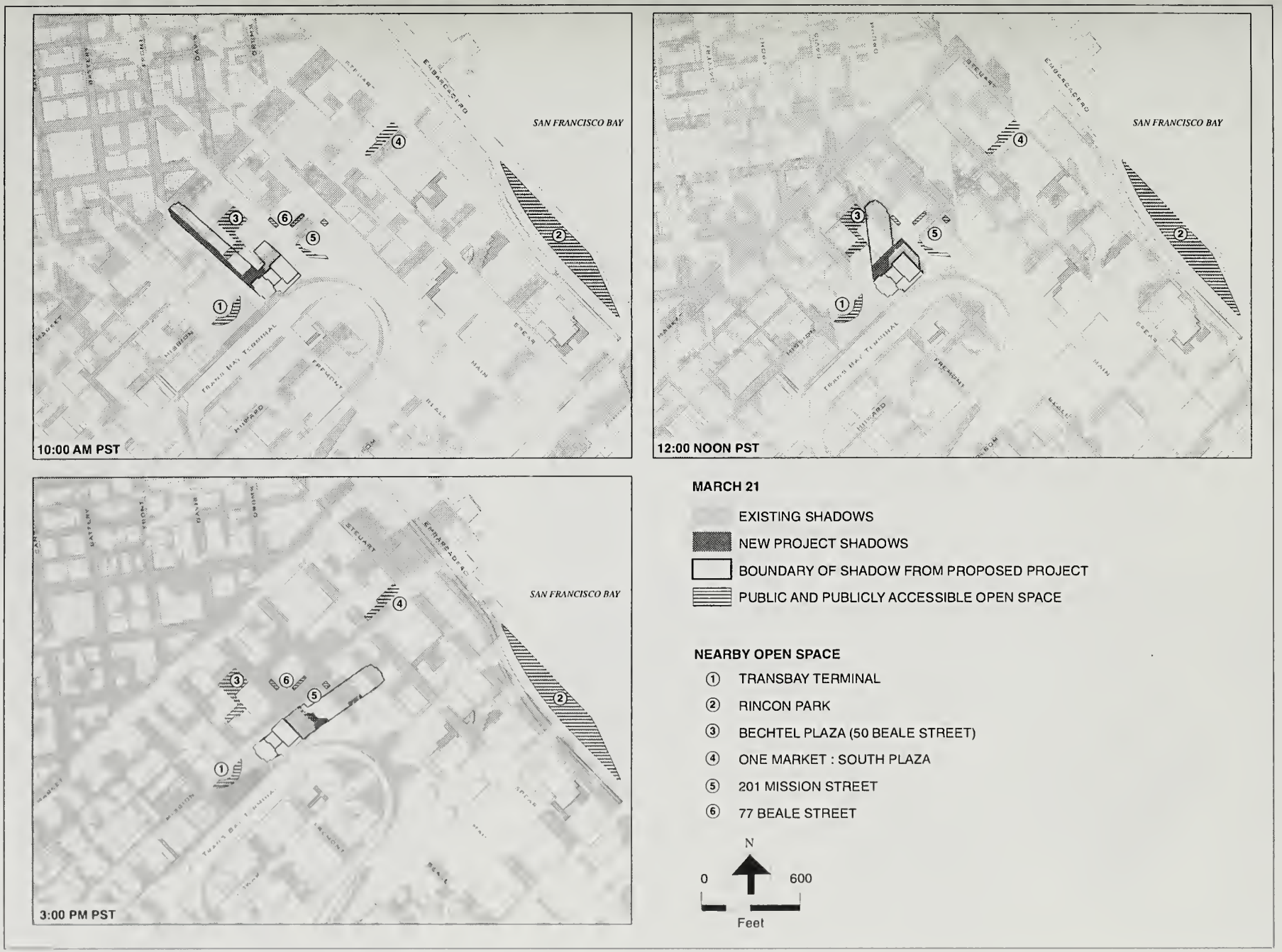
At noon, the project would create new shadow on about 275 linear feet of the north sidewalk in the 300 block of Mission Street; and on approximately 125 linear feet of the south sidewalk in the 300 block of Mission Street.

At 3:00 p.m., the project would create new shadow on publicly accessible open space at 201 Mission Street. A portion of this space is already shaded by existing buildings on the project site; the proposed development would create new shadow on the open space south of the overhead walkway and the area north of the parking lot during the afternoon hours. The space would then be fully shaded at this time. The project would also create new shadow on about 15 linear feet of the west sidewalk in the 200 block of Main Street; and about 15 linear feet of the east sidewalk in the 100 block of Main Street.

June 21

At 10:00 a.m. on June 21, the project would create new shadow on approximately 200 linear feet of the sidewalk at the northwest corner of Mission and Fremont Streets; approximately 125 linear feet of the north sidewalk in the 300 block of Mission Street; and approximately 75 linear feet of the south sidewalk in the 300 block of Mission Street. It would also shade about 40 linear feet of the east sidewalk of Fremont Street north of Mission and 125 linear feet of the east sidewalk south of Mission Street (see Figure 25: Shadow Patterns on June 21).

At noon, the project would create new shadow on about 150 linear feet of the east sidewalk of Fremont Street near the corner of Fremont and Mission Streets; approximately 150 linear feet of the north sidewalk in the 300 block of Mission Street; and approximately 100 linear feet of the south sidewalk in the 300 block of Mission Street.



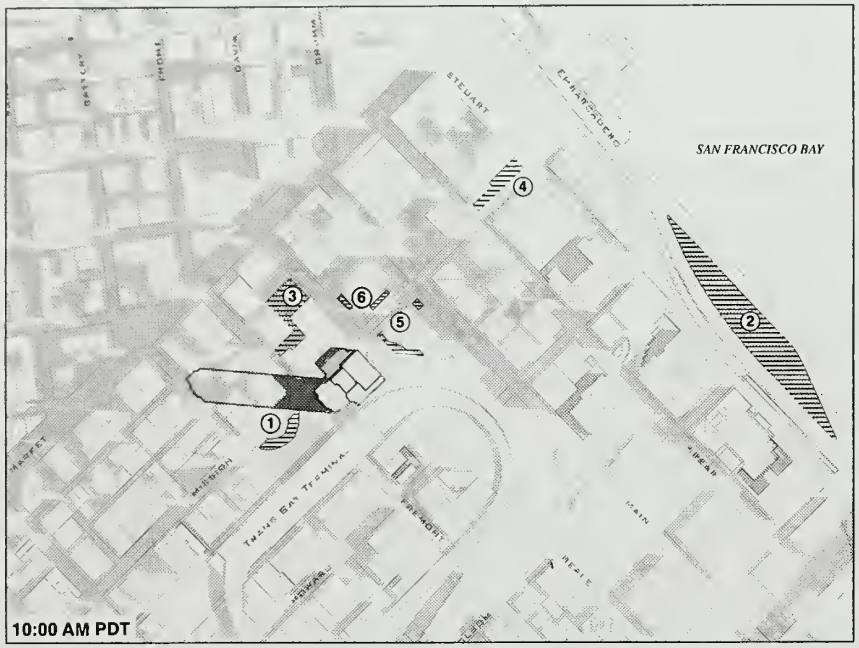
SOURCE: CADP, Turnstone Consulting

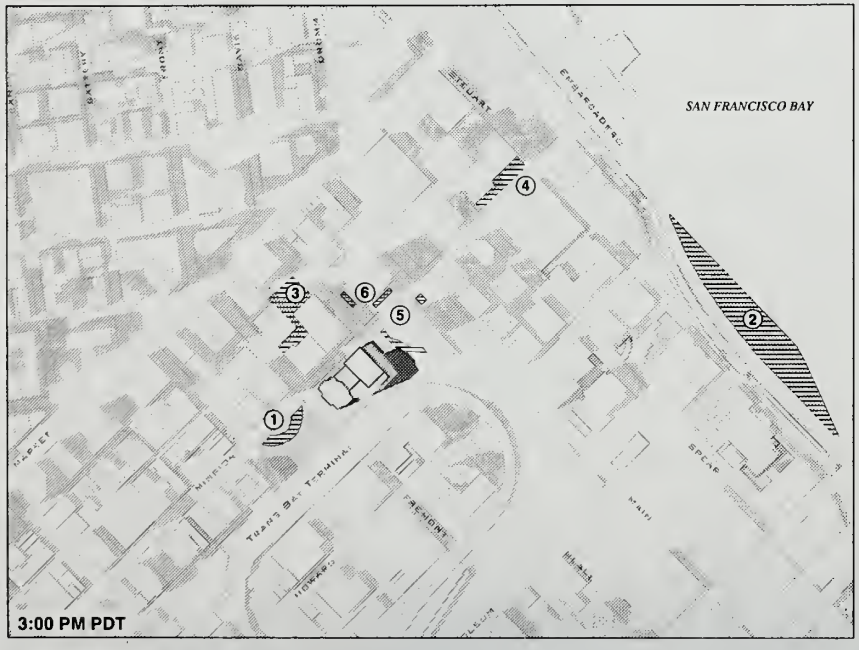
301 MISSION STREET

2001.0792E

FIGURE 24: SHADOW PATTERNS ON MARCH 21
(10 a.m., Noon, 3 p.m. PST)

2.07.03





JUNE 21

- EXISTING SHADOWS
- NEW PROJECT SHADOWS
- BOUNDARY OF SHADOW FROM PROPOSED PROJECT
- PUBLIC AND PUBLICLY ACCESSIBLE OPEN SPACE

NEARBY OPEN SPACE

1. TRANSBAY TERMINAL
2. RINCON PARK
3. BECHTEL PLAZA (50 BEALE STREET)
4. ONE MARKET : SOUTH PLAZA
5. 201 MISSION STREET
6. 77 BEALE STREET

N

0 600

Feet

84

1.17.03

SOURCE: CADP, Turnstone Consulting

301 MISSION STREET

2001.0792E

FIGURE 25: SHADOW PATTERNS ON JUNE 21
(10 a.m., Noon, 3 p.m. PDT)

At 3:00 p.m., the project would create new shadow on the southwest corner of the publicly accessible open space at 201 Mission Street. The project would also create new shadow on about 20 linear feet of the west sidewalk in the 100 block of Beale Street; and on approximately 150 linear feet of the east sidewalk in the 100 block of Beale Street.

September 21

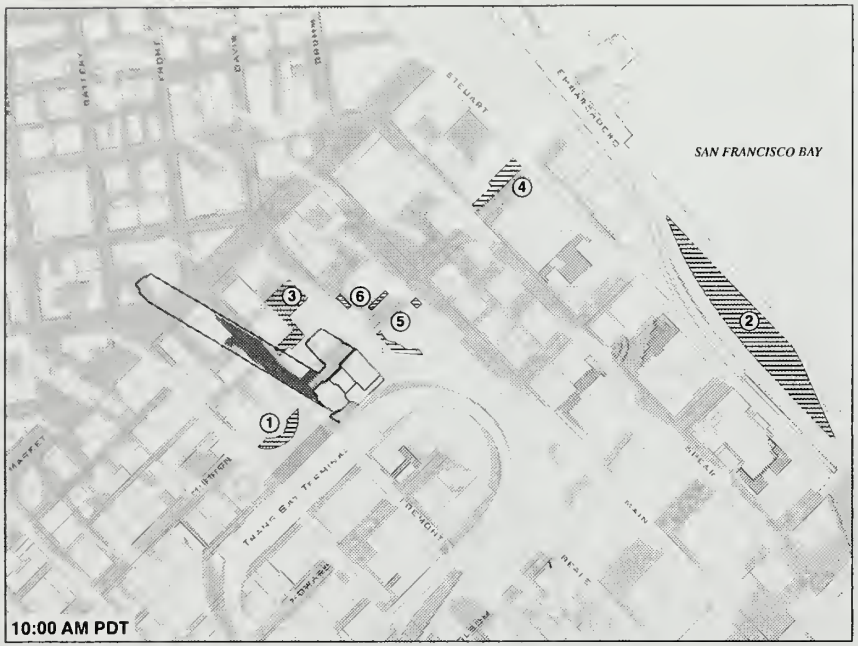
At 10:00 a.m., the project would create new shadow on about 325 linear feet of the west sidewalk on Fremont Street, mid-block between Mission and Market Streets; on about 200 linear feet of the north sidewalk in the 300 block of Mission Street at Fremont Street; and on the east sidewalk in the 100 block of Fremont Street, west of the proposed tower (see Figure 26: Shadow Patterns on September 21).

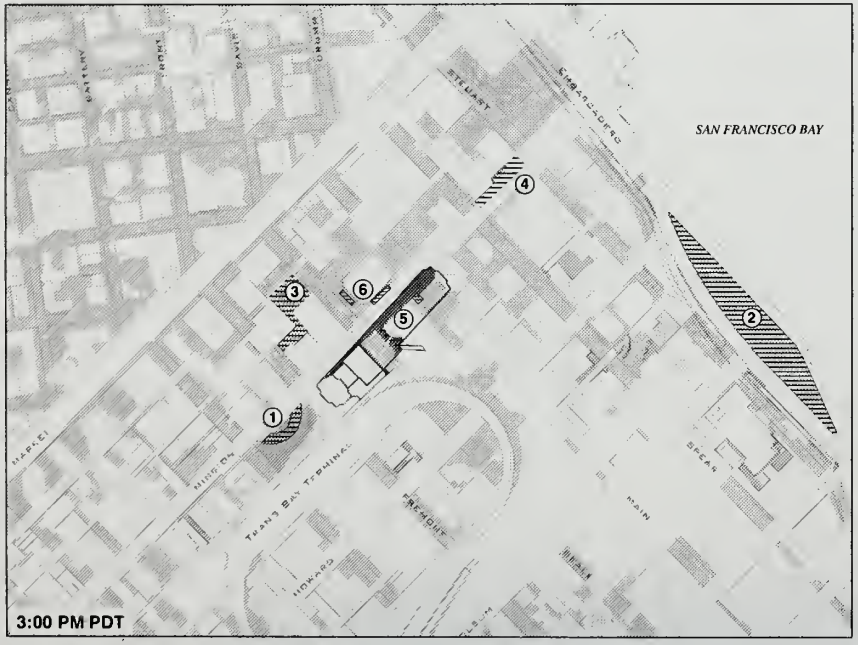
At noon, the project would create new shadow on approximately 200 linear feet of the north sidewalk in the 300 block of Mission Street; and approximately 125 linear feet of the south sidewalk in the 300 block of Mission Street.

At 3:00 p.m., the project would create new shadow on most of the publicly accessible open space at 201 Mission Street; the open space is not shaded by existing buildings during this time of day and year. The project also would create new shadow on about 300 linear feet of the south sidewalk in the 300 block of Mission Street, extending to the southeast corner of Mission and Main Streets.

Conclusion

The project would not have a significant impact because it would not cast new shadow on any open space under the jurisdiction of, or designated to be acquired by, the Recreation and Park Commission. For informational purposes, this EIR has also considered project shadows on public open space and publicly accessible open space. The project would cast new shadow for short durations on portions of the Transbay Terminal Plaza, Rincon Park and four nearby publicly accessible open spaces at 50 Beale Street, 77 Beale Street, 201 Mission Street, and Transbay Terminal, as discussed above. The new project-generated shadow would not have a significant impact on these spaces.





SEPTEMBER 21

- EXISTING SHADOWS
- NEW PROJECT SHADOWS
- BOUNDARY OF SHADOW FROM PROPOSED PROJECT
- PUBLIC AND PUBLICLY ACCESSIBLE OPEN SPACE

NEARBY OPEN SPACE

1. TRANSBAY TERMINAL
2. RINCON PARK
3. BECHTEL PLAZA (50 BEALE STREET)
4. ONE MARKET : SOUTH PLAZA
5. 201 MISSION STREET
6. 77 BEALE STREET

N

0 600

Feet

98

2.03.03

SOURCE: CADP, Turnstone Consulting

301 MISSION STREET

2001.0792E

FIGURE 26: SHADOW PATTERNS ON SEPTEMBER 21 (10 a.m., Noon, 3 p.m. PDT)

WIND

SETTING

U.S. Weather Bureau and Bay Area Air Quality Management District data show that westerly (from the west) to northwesterly winds, reflecting the persistence of sea breezes, are the most frequent wind directions in San Francisco. Wind direction is most variable in the winter, when strong southerly winds, frequent during an approach of a winter storm, occur. Predictions of wind speed are based upon historic wind records from the U.S. Weather Bureau weather station atop the old Federal Building at 50 United Nations Plaza during the years 1945-1950. Of the 16 primary wind directions measured at the weather station, four directions occur most frequently and account for most of the strongest winds: northwest, west-northwest, west, and west-southwest. Calm conditions occur about 2 percent of the time. Average wind speeds are highest during summer and lowest during winter. The strongest peak winds occur during winter, when speeds of up to 47 miles per hour (mph) have been recorded. Typically, the highest wind speeds occur during the mid-afternoon hours, and the lowest occur during early morning hours.

Wind Hazard Criterion

In addition to comfort criteria described below, the San Francisco Planning Code (Section 148) establishes a wind hazard criterion. The hazard criterion is set at an hourly averaged wind speed of 26 mph, not to be exceeded more than once during the year. In the C-3 Districts, no building or addition would be permitted that would cause wind speeds to exceed the hazard level of more than one hour of any year. No exception may be granted. As further described below, the hazard criterion is not exceeded under existing conditions at any of the wind measurement locations.

Pedestrian Comfort Criteria

Wind conditions affect pedestrian comfort on sidewalks and in other public and publicly accessible areas. The comfort of pedestrians varies under different conditions of sun exposure, temperature, clothing, and wind speed.

Large buildings can redirect wind flows around buildings and divert winds downward to street level, resulting in increased wind speed and turbulence there. To provide a comfortable wind environment for people in San Francisco, the City established wind criteria for the downtown area within Section 148 of the Planning Code. The comfort criteria are based on pedestrian-level

wind speeds that include the effects of turbulence. These adjusted wind speeds are referred to as "equivalent wind speeds." Section 148 of the Planning Code establishes an equivalent wind speed of 7 mph in public seating areas and 11 mph in areas of substantial pedestrian use, known as comfort criteria. New buildings and additions to buildings may not cause ground-level winds to exceed these levels more than 10 percent of the time.[4] According to the Planning Code, if existing winds exceed the comfort level or if a proposed building or addition may cause ambient speed to exceed the criteria, new buildings and additions must be designed to reduce ambient wind speeds to meet these requirements, unless certain requirements are met for an allowable exception as described in Section 148. Compliance with the Section would be considered as part of the project review process. In administering Section 148, the Planning Department requires wind tunnel testing for tall buildings. This EIR reviews wind impacts of the proposed project against the Planning Code's pedestrian comfort, sitting area comfort, and hazard criteria.

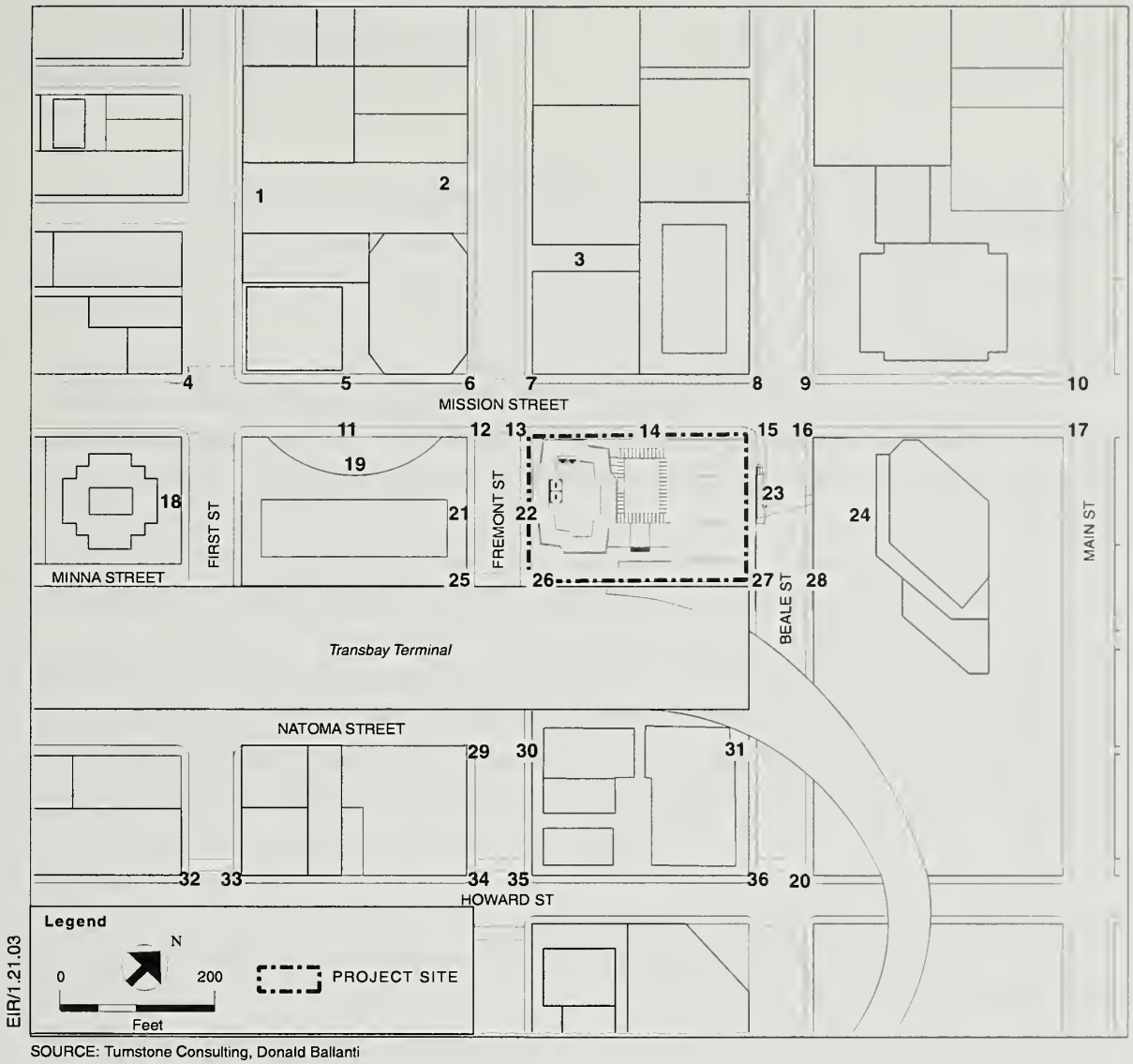
Methodology

Wind tunnel tests were conducted for the project site and vicinity under several scenarios, including the setting under existing conditions; existing conditions plus the proposed project; existing conditions with the proposed project plus the proposed, but not yet approved, full build-out alternative for the Transbay Redevelopment Project Area (Transbay cumulative); conditions with Alternative C as described in Chapter VI, Alternatives, p.150; and conditions with Alternative C plus Transbay cumulative. The wind tunnel analysis report with detailed methodology and results is included in Appendix C: Wind.

Using a wind tunnel and a scale model of the project site and surrounding area, wind speed measurements were taken at 36 pedestrian-level locations for all scenarios (locations 1 through 36).[5] Of the 36 pedestrian-level locations, four represent off-site public sitting locations (locations 1, 2, 3 and 24). Figure 27, Wind Speed Measurement Locations, shows the locations at which measurements were made. In accordance with the San Francisco wind ordinance

[4] The City Planning Code specifies the hours of 7:00 a.m. to 6:00 p.m. The available weather data cover the hours of 6:00 a.m. to 8:00 p.m. Thus, observation from two additional evening hours and one additional morning hour are included in these data. Because winds are generally stronger in the afternoon and evening than in the morning, this approximation is conservative – it is likely to overestimate the existing and projected wind speeds.

[5] In addition, five office rooftop locations were also tested in the wind tunnel under the proposed project and project cumulative conditions (locations 37 through 41).



SOURCE: Turnstone Consulting, Donald Ballanti

FIGURE 27: WIND SPEED MEASUREMENT LOCATIONS

methodology, the model was tested for four wind directions: northwest, west-northwest, west, and west-southwest.

Existing Conditions

The setting conditions analyzed in the wind tunnel included the existing buildings on the project site, along with a scale model of the buildings and structures in the project vicinity. The 555 Mission Street building, which has been approved but is not yet under construction, was also included.

Wind speeds under existing conditions do not exceed the hazard criterion of 26 mph for more than one hour per year at any of the 36 test locations. As shown in Table 2 of Appendix C, pp. 9-10, wind speeds range from 4 to 11 mph and exceed the pedestrian use and sitting comfort criteria at one of the 36 points using the comfort criteria methodology. The 7 mph pedestrian sitting comfort criterion is exceeded in location 3, which is at the Bechtel plaza along Fremont Street. There are no exceedances under existing conditions for the 11 mph pedestrian use comfort criterion.

IMPACTS

Significance Criteria

A project that would cause equivalent wind speeds to newly reach or exceed 26 mph for a single hour of the year would be considered to have a significant impact.

Proposed Project Conditions

Based on the results of the wind tunnel study, the proposed project would not substantially change wind conditions in the area compared to existing conditions. As discussed, wind speeds under existing conditions do not exceed the 26 mph hazardous wind criterion. With the project, winds would not exceed the hazard criterion at any point. Therefore, there would be no significant wind impact due to the project.

The project would result in wind speeds similar to existing conditions; they would range from 2 to 12 mph over 10 percent of the time using comfort criteria methodology (see Table 2 of Appendix C, pp. 9-10), compared to the existing 4 to 11 mph range. In comparison to existing

conditions, wind speeds with the proposed 301 Mission Street project would increase in 13 locations, decrease in 13 locations, and remain the same in 10 locations. Wind speeds would be the strongest across from the Transbay Terminal, in the 400 block of the north side of Mission Street (6 to 12 mph). With the 301 Mission Street project, one of the 36 wind speed measurement locations would newly exceed the 11 mph comfort criterion by 1 mph. This location is along the north side of Mission Street, in front of the 50 Fremont tower (location 5). To reduce wind speeds at this location to meet the comfort criterion, the Planning Commission could recommend that the Department of Public Works install street trees along the affected sidewalk (see Chapter V, Mitigation, p. 140 for this Improvement Measure). As under existing wind speed conditions, one of the four ground-level measurement locations would continue to exceed the 7 mph pedestrian sitting comfort criterion. This location is at the Bechtel plaza (location 3).

The project's view terrace, proposed on the roof of the residential/hotel tower, would not be accessible to the public. The terrace was not tested in a wind tunnel; according to the consulting meteorologist, it would be subject to strong winds.[6] It would be partially enclosed and screened from the wind.

Transbay Cumulative

As described in Section III.A, Land Use, p. 50, the proposed Transbay Redevelopment Project would provide a new intermodal bus and rail transit station in San Francisco's growing Financial District/South of Market Area. The Transbay project would include construction of a new, multi-modal terminal on the site of the present Transbay Terminal, and extension of the Caltrain commuter rail service from its current terminus at Fourth and Townsend Streets into a new underground terminus underneath the proposed new Transbay terminal. It would establish a Redevelopment Plan with transit-oriented development, including a planned high-rise hotel north of the new Transbay Terminal across Fremont Street from the project site.

Development of the project along with development under the Full Build alternative of the proposed Transbay Redevelopment Project, including a high-rise hotel directly across Fremont Street, would result in wind speeds similar to both existing and proposed project conditions.

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[6] Donald Ballanti, Certified Consulting Meteorologist, letter to Nancy Clark, Turnstone Consulting, Rooftop Open Space, 301 Mission Street Project, San Francisco, dated January 22, 2003. This letter is available for public review, by appointment, at the San Francisco Planning Department, located at 1660 Mission Street.

Similar to existing and proposed project conditions, winds would not exceed the 26 mph hazardous wind criterion at any point. Therefore, there would be no significant wind impact under the Transbay cumulative scenario.

With the Transbay cumulative, wind speeds would range from 4 to 13 mph over 10 percent of the time using comfort criteria methodology (see Table 2 of Appendix C, pp. 9-10).[7] One of the 31 tested pedestrian locations (location 12) would exceed the 11 mph pedestrian use comfort criterion. One of the four tested sitting locations (location 3) would exceed the 7 mph public sitting comfort criterion, as it would with the project alone.

Wind speeds would be strongest along the south side of Mission Street in front of both the Transbay Terminal building and the 301 Mission Street project site (8 to 13 mph), and along the east side of Fremont Street at the project site (9 to 11 mph).

Compared to existing wind speed conditions, the Transbay cumulative would add one location (location 12) where wind speeds would exceed the 11 mph pedestrian use criterion. This point, located on the southwest corner of the Mission and Fremont Streets intersection, would be 13 mph. In comparison to existing conditions, wind speeds with the Transbay cumulative would increase in 12 locations, decrease in 14 locations, and remain the same in 9 locations. Wind speeds in a plaza that is being considered for the site adjacent to the proposed hotel under one of the Transbay Terminal alternatives would be unaffected by development of the project site, since the plaza site is in an upwind direction and the two sites would be physically separated by a roughly 400-foot-tall hotel structure.[8]

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[7] Under the Transbay cumulative scenario, 35 ground-level point locations were tested rather than 36. This is because test point location 19 is located in the footprint of the proposed high-rise hotel and low-rise structure (west of the hotel), both of which are being considered under the Transbay Terminal EIR Full Build alternative.

[8] Donald Ballanti, *Wind Tunnel Analysis for the Proposed 301 Mission Street Project, San Francisco*, October 2002, p. 11.

D. TRANSPORTATION[1]

SETTING

The existing conditions (including traffic, transit, parking, pedestrians and bicycles) presented in this analysis are based on observations and counts conducted in 2000 and 2001, plus the most recent data obtained from the San Francisco Municipal Railway (Muni) and the regional transit operators.

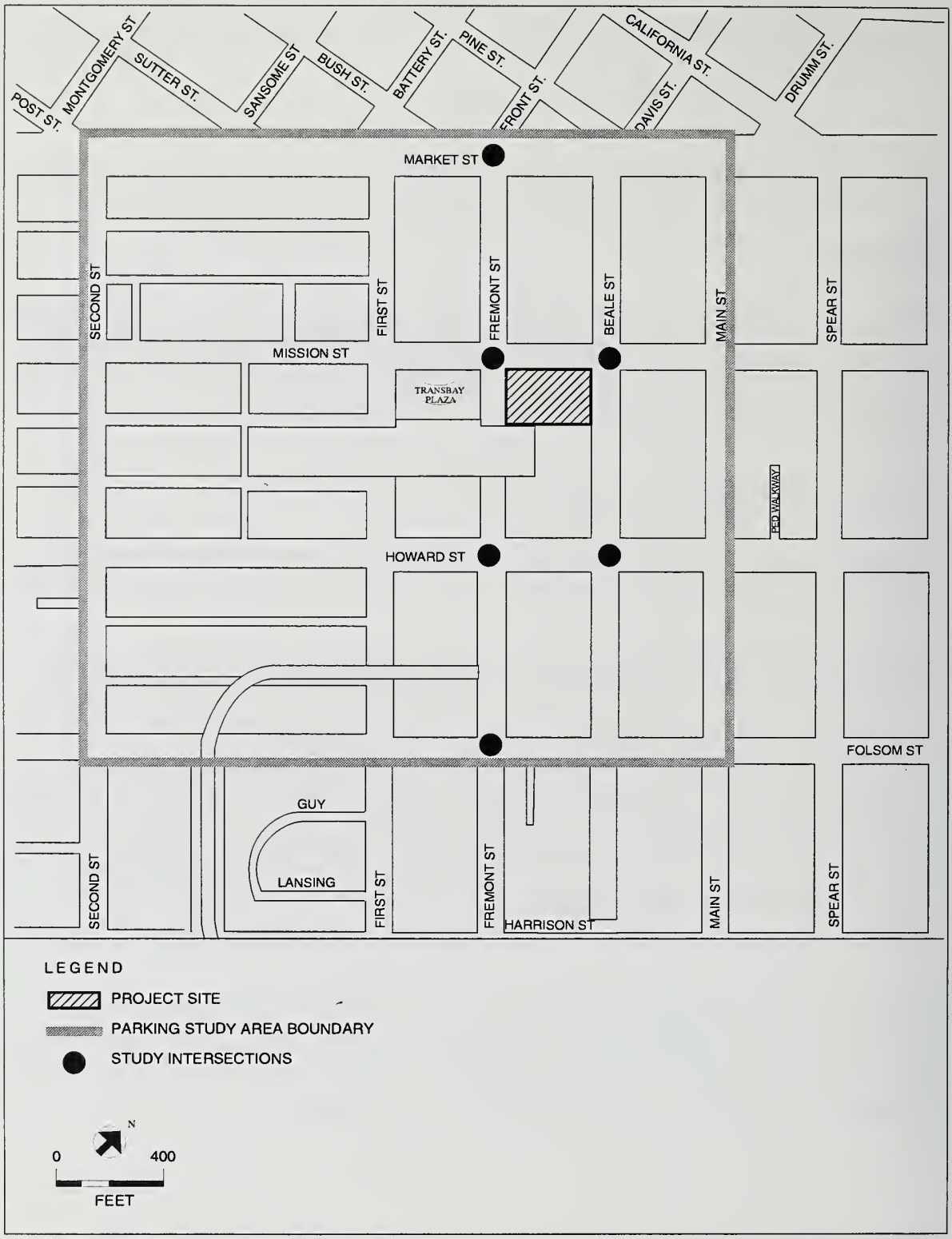
TRANSPORTATION STUDY AREA

The transportation analysis established study areas around the project site for traffic, transit and parking. These study areas are shown on Figure 28.

For the traffic analysis, six study intersections were identified as locations likely to be most affected by the project. The study intersections include the intersections along Fremont Street and Beale Street adjacent to the project site. Intersections more distant from the project site were not analyzed for the Existing-plus-Project scenario, since project-generated traffic would be dispersed among the many local streets farther from the project site and, consequently, would be less than at the study intersections. Due to anticipated future development in the area, including the Transbay Terminal and Transbay Redevelopment Projects, the assessment of the project impacts on 2020 future conditions includes 27 intersections in a wider study area generally bounded between Second Street and The Embarcadero, and between Market and Bryant Streets.

The transit study area includes the local and regional transit service within about two blocks (approximately ¼ mile) of the project site. The parking study area is bounded by Market Street to the north, Main Street to the east, Folsom Street to the south and Second Street to the west. The pedestrian and bicycle study area includes the local streets adjacent to the project block.

[1] The information in this section is from the *301 Mission Street Transportation Study – Final Report*, April 2002, prepared by Wilbur Smith Associates, and a supplemental memorandum to Bill Wycko, Planning Department, January 2003, prepared by Wilbur Smith Associates. These materials are on file and available for public review, by appointment, at the San Francisco Planning Department, located at 1660 Mission Street, San Francisco, CA.



EIR/10.5.02

SOURCE: Turnstone Consulting

301 MISSION STREET

2001.0792E

FIGURE 28: TRANSPORTATION STUDY AREA

ROADWAY NETWORK

Regional Freeways

The project site is served by Interstate 80 (I-80), U.S. 101 and Interstate 280 (I-280). I-80 provides the primary regional access to the project area. The San Francisco-Oakland Bay Bridge is part of I-80 and connects San Francisco with the East Bay and points east. Access to the project site is via the Fremont Street, Harrison Street, and Fourth and Bryant off-ramps; access to I-80 is via the First Street, Essex Street and Sterling Street (high-occupancy vehicles only) on-ramps (eastbound) and the Fourth and Harrison Streets on-ramp (westbound). I-80 joins U.S. 101 southwest of the project site and provides access to the Peninsula and South Bay. In addition, U.S. 101 connects San Francisco and the North Bay via Van Ness Avenue and Lombard Street to the Golden Gate Bridge. I-280 provides regional access from the South of Market area of downtown San Francisco to southwest San Francisco and the South Bay/Peninsula. Nearby access points to I-280 are located at King Street near Fifth Street and Sixth and Brannan Streets.

Local Streets

In the South of Market area, streets that run in the northwest/southeast direction are generally considered north-south streets, whereas streets that run in the southwest/northeast direction are generally considered east-west streets. Table 1 presents the San Francisco *General Plan* designations and bicycle routes for the streets in the vicinity of the project site.

Market Street is a two-way arterial that runs between Steuart Street to the east and Portola Drive to the west. West of Fifth Street, one of the travel lanes in each direction is reserved for transit-vehicles only. Mission Street is a four-lane arterial that runs in an east-west direction between The Embarcadero and Van Ness Avenue, and continues in a north-south direction west of Van Ness Avenue. Left turns from Mission Street are generally prohibited between Main/Beale Streets and Tenth Street. In the vicinity of the project, Mission Street has 15-foot-wide sidewalks. On-street, metered parking is provided along both curbs, but parking is prohibited during the a.m. and p.m. peak periods. Howard Street runs between The Embarcadero and South Van Ness Avenue. In the vicinity of the project site, on-street parking is provided on both sides of the street; however, parking is prohibited along the north curb during the p.m. peak period (4:00 to 6:00 p.m.) to provide an additional traffic lane.

Table 1: San Francisco General Plan Street Designations[1]

Street	Configuration in Project Vicinity	Vehicular [2]	Transit [3]	Pedestrian [4]	Bicycle [5]
Market Street	4 lanes 2-way 2 transit-only lanes, west of Fifth Street	Transit Conflict Street in CMP Network	Transit Preferential Street (Transit Oriented)	Neighborhood Commercial Street Citywide Pedestrian Network Street	Citywide Bicycle Route #50
Mission Street	4 lanes 2-way 1 transit-only lane, am and pm peak	Transit Conflict Street in CMP Network	Transit Preferential Street (Transit Oriented)	Neighborhood Commercial Street Citywide Pedestrian Network Street	—
Howard Street	4 lanes 2-way E of Fremont 1-way wb W of Fremont	Major Arterial in CMP Network MTS Street	Transit Preferential Street (Transit Important)	—	Citywide Bicycle Route #30
Folsom Street	4 lanes 2-way E of Main 1-way eb W of Main	Major Arterial in CMP Network MTS Street	—	—	Citywide Bicycle Route #30 (Striped Bicycle Lane)
Main Street	3 lanes 2-way S of Folsom 1-way nb of Folsom	Major Arterial in CMP Network MTS Street	Transit Preferential Street (Transit Oriented)	—	—
Beale Street	2 lanes 1-way sb N of Bryant 2-way S of Bryant	Major Arterial in CMP Network MTS Street	Transit Preferential Street (Transit Oriented)	—	—
Fremont Street	2 to 4 lanes 1-way nb N of Folsom 1 transit-only lane N of Mission	Major Arterial in CMP Network MTS Street	Transit Preferential Street (Transit Oriented)	Neighborhood Commercial Street	—
First Street	4 lanes 1-way sb 1 transit only-lane N of Howard	Major Arterial in CMP Network MTS Street	Transit Preferential Street (Transit Oriented)	Neighborhood Commercial Street	—

Notes: wb - westbound; eb - eastbound; sb - southbound; nb - northbound; CMP=Congestion Management Plan; MTS=Metropolitan Transportation System

[1] *San Francisco General Plan,* Transportation Element. Appendix D includes the definition of the various *General Plan* designations.

[2] Transportation Element, Maps 6-8, pgs. 1.4.32-34.

[3] Transportation Element, Map 9, p. 1.4.42.

[4] Transportation Element, Maps 11-12, pgs. 1.4.55-56.

[5] Transportation Element, Map 13, p. 1.4.59.

Source: Wilbur Smith Associates, April 2002; Turnstone Consulting.

Main Street is a north-south roadway that runs between Market and Bryant Streets. Main Street has both metered and unrestricted parking on both sides of the street. Beale Street is a north-south street that runs between Market and Bryant Streets, and ends in a cul-de-sac south of Bryant Street. Beale Street has been closed under the I-80/Bay Bridge structure since September 2001, and it is not currently known if the closure is temporary or permanent. Adjacent to the project site, Beale Street has three travel lanes, plus a 23-foot sidewalk that narrows to 10 feet from midblock of the project site to Howard Street. There is metered on-street parking on both sides of the street.

Fremont Street is a one-way northbound arterial that runs between Harrison and Market Streets. Two off-ramps from eastbound I-80 touch down on Fremont Street (at Harrison Street, and mid-block between Howard and Folsom Streets). There is metered and unmetered parking along Fremont Street south of the project site; there are Muni and Golden Gate Transit bus stops on Fremont Street south of Mission Street. Adjacent to the project site, Fremont Street has 15-foot-wide sidewalks; a bus shelter occupies about 7 feet of the sidewalk width beside part of the project frontage. First Street is a one-way southbound arterial that runs between Market and Harrison Streets and provides access to eastbound I-80 and the Bay Bridge. Between Market and Howard Streets, one of the four travel lanes is dedicated for transit vehicles only.

Intersection Operating Conditions

Operating characteristics of intersections are described by the concept of Level of Service (LOS). LOS is a description of an intersection's performance based on the average delay per vehicle. Intersection levels of service range from LOS A, which indicates free flow or excellent conditions with short delays, to LOS F, which indicates congested conditions with extremely long delays. LOS A through D are considered acceptable LOS (excellent to satisfactory) service levels. LOS E is undesirable, and LOS F conditions are considered unacceptable.

Existing intersection operating conditions were evaluated for the weekday p.m. peak hour (generally between 5:00 and 6:00 p.m.) of the p.m. peak period (4:00 to 6:00 p.m.) for the six study intersections. The p.m. peak was chosen for detailed quantitative analysis because that is the period when the maximum use of much of the transportation system occurs and when most of the system is at service capacity. Existing weekday p.m. peak hour intersection operating conditions are presented in Table 3, Intersection Levels of Service, on p. 108 in the Impacts

subsection. During the weekday p.m. peak hour, all six of the study intersections currently operate at LOS C, or better, considered acceptable conditions.

A qualitative assessment of a.m. peak period conditions was conducted at the intersection of Fremont/Mission. During the morning commute period, Fremont Street serves as a primary northbound arterial between Harrison Street and Market Street. Two I-80 westbound/Bay Bridge ramps touch down on Fremont Street, providing the primary access route for vehicles traveling from the East Bay into downtown San Francisco. As a result, traffic volumes on Fremont Street are higher during the a.m. peak period than during the p.m. peak period. In addition to the high traffic volumes associated with vehicles accessing downtown, Fremont Street serves outbound buses exiting the Transbay Terminal loop, buses using curbside stops on the east curb of Fremont Street, pedestrians exiting the Transbay Terminal, and pedestrians exiting the transbay casual carpool vehicles.

During the a.m. peak period, vehicles traveling through on Fremont Street destined to Market Street and beyond typically do not experience substantial congestion or delays. However, vehicles turning left or right from Fremont Street to Mission Street (from separate turn lanes) are often delayed due to the high volume of pedestrians destined for Market Street and beyond. Some vehicles waiting to turn left or right are delayed more than one signal cycle length. In addition to the high volume of pedestrians crossing Mission Street, some carpool passengers disembark along the Fremont Street curb, both at the approach to Mission Street (in the bus stop) and between Mission and Market Streets. Conflicts between vehicles dropping off passengers and vehicles turning right onto Mission Street were observed.

A midblock signal for pedestrians crossing Fremont Street and buses exiting the Transbay Terminal stops vehicles on Fremont Street about 200 feet south of Mission Street, increasing delays for some northbound vehicles. However, field observations did not indicate that this midblock signal results in any substantial congestion on Fremont Street or spillbacks of vehicles into the upstream intersection of Fremont and Howard.

TRANSIT

The project site is in an area well served by public transit, with both local and regional service provided near the project site by Muni, Bay Area Rapid Transit (BART), SamTrans, Golden Gate Transit and AC Transit. The project site is across Fremont Street from the Transbay Terminal

and within walking distance of the Ferry Building, both regional transit connection locations. Local service is provided by the Muni bus and light rail lines. Muni operates 19 bus lines and 5 light rail lines in the vicinity of the project site, including several cross-town bus lines that also serve the Transbay Terminal. Service to and from the East Bay is provided by BART, AC Transit, and ferries; service to and from the North Bay is provided by Golden Gate Transit buses and ferries; service to and from the Peninsula and South Bay is provided by Caltrain, SamTrans, and BART.

The availability of Muni and regional transit service capacity was analyzed in terms of a series of screenlines. Four screenlines have been established in San Francisco to analyze potential impacts of projects on Muni service: Northeast, Northwest, Southwest and Southeast, with subcorridors within each screenline (see Figure D-1 in Appendix D). Three regional screenlines have been established around San Francisco to analyze potential impacts of projects on the regional transit carriers: East Bay (AC Transit, BART, ferries), North Bay (Golden Gate Transit buses and ferries) and South Bay (BART, Caltrain, SamTrans). The screenline analysis focuses on transit trips in the outbound direction (i.e., trips from greater downtown San Francisco to other parts of the City and the region) because the outbound direction reflects the peak direction of travel and patronage loads for the transit carriers during the p.m. peak period.

As a means to determine the amount of available space within each screenline, capacity utilization is used, which relates the number of passengers per transit vehicle to the design capacity of the vehicle. In contrast to other transit operators, Muni has established a capacity utilization service standard that includes not only seating capacity but also substantial numbers of standees, with standees representing somewhere between 30 percent to 80 percent of seated passengers, depending on the specific transit vehicle configuration. Thus, Muni screenlines, and subcorridors within these screenlines, that are at or near capacity operate under noticeably crowded conditions with many standees. Because each screenline and most subcorridors include several Muni lines with multiple transit vehicles from each line, some individual transit vehicles operate at or above capacity and are extremely crowded during the p.m. peak hour at their most heavily used points (i.e., screenlines), while others operate under less crowded conditions. The extent of crowding is accentuated whenever target headways are not met through either missed runs and/or bunching in service. Thus, in common with other types of transportation operations such as roadways and parking facilities, transit operators may experience substantial problems in service delivery well short of established service capacity standards.

For all regional transit operators, the capacity is based on the number of seated passengers per vehicle. All of the regional transit operators except BART have a one-hour load factor standard of 100 percent, which would indicate that all seats are full. BART has a one-hour load factor standard of 135 percent, which indicates that all seats are full and an additional 35 percent of the seating capacity are standees (i.e., 1.35 passengers per seat).

All Muni screenlines and subcorridors are currently operating within the capacity utilization standard and have available capacity to accommodate additional passengers. All regional transit providers operate at less than their load factor standards, which indicates that seats are generally available.

PARKING

Parking conditions were determined for the weekday midday period (1:30 to 3:30 p.m.) and the weekday evening period (6:30 to 8:00 p.m.). There are 26 off-street public parking facilities in the study area, providing about 3,730 spaces. During the weekday midday period, the parking occupancy at these facilities ranges from 64 to 97 percent of capacity, with an overall occupancy of about 80 percent of capacity. Most of the study parking facilities serve downtown employees and generally close sometime between 6:00 and 8:00 p.m. No parking facilities are attended 24 hours a day, but ten facilities allow evening and overnight parking during the weekday either through payment drop-box or entry before 7:00 p.m. Combined, the facilities that are open in the evening or overnight provide about 1,720 spaces (of the total 3,730 spaces) and operate at about 17 percent of capacity during the weekday evening period.

On-street parking is provided adjacent to the project site on both Mission and Beale Streets. In general, on-street parking in the vicinity of the project site is comprised of metered and unmetered spaces, with 30-minute limits, and some yellow loading spaces. Peak period (generally 7:00 to 9:00 a.m. and 3:00 to 7:00 p.m.) tow-away regulations are in effect along many of the major arterials (such as Mission, Howard and Fremont Streets) in the study area. The on-street parking is well used throughout the day and in the evenings.

PEDESTRIANS

An analysis of operating characteristics was conducted for the sidewalks adjacent to the project site. Sidewalk operating conditions are measured by average pedestrian flow rate, which is

defined as the average number of pedestrians that pass a specific point on the sidewalk during a defined period. Sidewalks are evaluated using a "level of service" concept, similar to the evaluation of traffic operations at intersections, with an upper limit for acceptable conditions as LOS D.

Pedestrian conditions were assessed at the three sidewalks adjacent to the project site for the midday and p.m. peak hour conditions. Pedestrian counts were conducted on Fremont, Beale and Mission Streets on Tuesday, December 11, 2001 for the weekday midday (12:00 to 2:00 p.m.) and the p.m. (4:00 to 6:00 p.m.) peak periods. Table 4, p. 114 in the Impacts subsection, presents existing pedestrian conditions at the study locations during the midday and p.m. peak hour. Pedestrian volumes are generally higher during the p.m. peak hour than the midday peak hour, and there are more pedestrians on Mission and Fremont Streets than on Beale Street. Pedestrian levels of service conditions are all LOS D or better, with the exception of the Fremont Street analysis location. A Muni bus shelter reduces the sidewalk width from 15 feet to 8 feet. During the p.m. peak hour, this section of sidewalk operates at LOS E under "platoon" conditions, which represents conditions when pedestrians walk together in a group.

During the morning commute period, carpool vehicles exiting the Bay Bridge using the Fremont Street off-ramp unload their passengers at the intersection of Fremont and Howard Streets. The number of carpool passengers disembarking during the morning commute period results in heavy pedestrian flows in the northbound direction on both sides of Fremont Street. These carpool passengers, as well as pedestrians exiting the Transbay Terminal and crossing at the midblock crosswalk, result in higher pedestrian volumes on the Fremont Street sidewalk adjacent to the project site than during the midday or p.m. peak hour. Field observations of pedestrian flows during the morning commute period did not indicate major conflicts or constrained conditions, however.

The Downtown Plan, an Area Plan of the *San Francisco General Plan*, identifies segments of downtown streets and alleys where varying degrees of priority should be given to pedestrian use. The project site fronts along a stretch of Beale Street that is designated in the Pedestrian Network Classification of Elements in the Downtown Plan as a Second Level Street.[2] Second Level Streets "are designated as significant pedestrian paths between important destinations." Second

[2] Downtown Plan, as amended by Planning Commission Resolution 13909, adopted on July 13, 1995, in the amended section on Pedestrian Network Classification of Elements identifying five types of pedestrian streets, and amended Map 7, Proposed Pedestrian Network Downtown District.

Level Streets generally have wider sidewalks than typical in Downtown, facilitating more pedestrian amenities such as sidewalk paving variation, benches, bicycle racks, sidewalk cafes and kiosks, as well as the street trees, trash cans and informational signage that would be standard street furniture for Base Case Streets in downtown. The project site fronts along a section of Mission Street that is designated as a Special Level Street. These streets are destination streets that would have additional improvements such as banners, upper-level awnings, flower stands and sidewalk widenings that do not appear elsewhere in Downtown.

BICYCLES

In the vicinity of the project site, Howard Street, Folsom Street, Market Street, The Embarcadero and Second Street are designated Citywide Bicycle Routes. Route #11 runs in both directions on Second Street and is a Class III facility (signed route only) between Market and King Streets. Route #5 runs in both directions along The Embarcadero and is a Class II facility (signed route with bicycle lane). Route #50 runs in both directions along Market Street and is a Class III facility (signed route only). Route #30 runs eastbound along Folsom Street and westbound along Howard Street. Route #30 on Folsom Street is Class II (signed route with bicycle lane), and the route on Howard Street is Class III (signed route only). On January 7, 2002, the San Francisco Board of Supervisors approved the striping of Howard Street between Fifth and Eleventh Streets to provide a bicycle lane on the north side of the street. Planning for a bicycle lane on the section of Howard Street between First and Fifth Streets is currently underway.

During weekday midday and evening field surveys, a moderate number of bicyclists (10 to 20 per hour) were observed to be riding in the vicinity of the project, primarily on Mission Street, which is not a designated bicycle route. Conflicts between bicyclists, pedestrians and vehicles were observed at the intersection of Mission and Fremont Streets. Most bicyclists were either heading west on Mission Street or turning right onto Fremont Street from Mission Street westbound. Bicyclists traveling west on Mission Street or turning right from Fremont Street occasionally conflict with pedestrians crossing Fremont Street or motorists turning left or right from Fremont Street. Overall, existing bicycle operating conditions are acceptable.

IMPACTS

SIGNIFICANCE CRITERIA

The San Francisco Planning Department has established significance criteria to assess transportation impacts associated with a project.

Intersections

In San Francisco, the threshold for a significant adverse impact on traffic has been established as a deterioration in the level of service (LOS) at a signalized intersection from LOS D or better to LOS E or F, or from LOS E to LOS F. For an intersection that operates at LOS E or F in the existing conditions, there may be a significant adverse impact depending upon the magnitude of the project's contribution to the worsening of delay. In addition, a project would have a significant adverse effect if it would cause major traffic hazards, or would contribute considerably to cumulative traffic increases that would cause the LOS to deteriorate to unacceptable levels (i.e., to LOS E or F).

Transit

The project would have a significant effect on the environment if it would cause a substantial increase in transit demand that could not be accommodated by the available transit capacity, resulting in unacceptable levels of transit service; or cause a substantial increase in operating costs such that significant adverse impacts in transit service levels could result. With the Muni and regional transit screenlines analyses, the project would have a significant effect on the transit provider if project-related transit trips would cause the capacity utilization standard to be exceeded during the weekday p.m. peak hour.

Parking

Parking supply is not considered to be a part of the permanent physical environment in San Francisco.[3] Parking conditions are not static conditions, as parking supply and demand varies

[3] Under California Public Resources Code, Section 21060.5, "environment" can be defined as "the physical conditions which exist within the area which will be affected by a proposed project, including land, air, water, minerals, flora, fauna, noise and objects of historic or aesthetic significance."

from day to night, from day to day, month to month, etc. Hence, the availability of parking spaces (or lack thereof) is not a permanent physical condition, but changes over time as people change their modes and patterns of travel. Therefore, parking deficits in and of themselves are considered to be social effects, rather than impacts on the physical environment, as defined by CEQA.

Parking deficits may be associated with secondary physical environmental impacts, such as increased traffic congestion at intersections, air quality or noise effects caused by congestion. However, in the experience of San Francisco transportation planners, the absence of a ready supply of parking spaces, combined with available alternatives to auto travel (e.g., transit, taxis, bicycles or walking) and the relatively dense patterns of urban development, may induce drivers to seek and find alternate parking facilities, shift to other modes of travel or change their overall travel habits. Resulting shifts to public transit, in particular, would be in keeping with the City's transit first policy and also contribute to reductions in any less-than-significant secondary impacts from parking shortfalls.

Additionally, regarding potential secondary effects, autos circling and looking for a parking space in areas of limited parking supply is typically a temporary condition, often offset by a reduction in vehicle trips by others who are aware of constrained parking conditions in an area. Hence, any secondary environmental impacts which may result from a shortfall in parking in the vicinity of the project would likely be minor and difficult to predict in relationship to any specific intersection.

Thus, a parking shortage is not considered to be a permanent physical condition and is also not considered to be a physical environmental impact even though it is understood to be an inconvenience to drivers. Therefore, the creation of, or an increase in, parking demand that cannot be met by existing or proposed parking facilities would not itself be considered a significant environmental effect under CEQA. In the absence of such physical environmental impacts, CEQA does not require environmental documents to propose mitigation measures solely because a project is expected to generate parking shortfalls.

Pedestrians

The project would have a significant effect on the environment if it would result in substantial overcrowding on public sidewalks, create potentially hazardous conditions for pedestrians, or otherwise interfere with pedestrian accessibility to the site and adjoining areas.

Bicycles

The project would have a significant effect on the environment if it would create potentially hazardous conditions for bicyclists or otherwise substantially interfere with bicycle accessibility to the site and adjoining areas.

Construction

Construction-related impacts generally would not be considered significant due to their temporary and limited duration.

ANALYSIS METHODOLOGY

Project Travel Demand

To estimate the number of new person trips that would be generated by the project, trip generation rates were applied to each land use calculated on a weekday daily and p.m. peak hour basis. These person trips were distributed to eight geographical areas, including the four quadrants of San Francisco, the East Bay, the North Bay, the South Bay, and outside the area, and were assigned to the various available travel modes (including auto, transit, walk and other modes). Both the distribution and the choice of travel mode (mode split) of the trips were based upon the type of land use and the purpose of the trip, plus the geographic distribution of residents and employment in the Bay Area and the availability of the various travel modes. The number of vehicle trips generated by the project was determined from the auto person trips and an average vehicle occupancy.

Person-trip generation for the residential and retail land uses was based on rates compiled by the San Francisco Planning Department and published in the *Interim Transportation Impact Analysis Guidelines*, January 2000 (*SF Guidelines*). The *SF Guidelines* does not have a separate land use category for "extended-stay" hotels; therefore, information on standard hotels was used. Due to their nature, extended-stay hotels are expected to have lower activity levels than standard hotels, since they typically only have one guest per room and target business travelers, rather than tourists. Tour buses would not be expected to be used by guests at the extended-stay hotel. In

addition, it is anticipated that these guests would use private automobiles less often and walk or use transit and taxis more often than guests of a standard hotel. Therefore, the analysis contained in this report represents a conservative analysis of the travel demand associated with the project.

The proposed project uses would generate approximately 7,727 person trips on a weekday daily basis and 969 person trips during the p.m. peak hour. Table 2 presents the person trips and vehicle trips generated by the project during the p.m. peak hour. Since the project would eliminate the restaurant and office uses in the existing buildings on the project site, field surveys were conducted to determine the travel demand associated with these uses, and the existing trips were subtracted from the project-generated trips. The resulting net new person and vehicle trips during the p.m. peak hour are presented in Table 2. During the weekday p.m. peak hour, the project would result in about 876 net new person trips and 179 net new vehicle trips. About 50 percent of the trips would be inbound to the project site and 50 percent would be outbound from the project site.

Table 2: Project Trip Generation by Mode - Weekday P.M. Peak Hour

Land Use	Person-Trips				Vehicle Trips
	Auto	Transit	Walk/Other[1]	Total	
Residential	125	60	308	493	104
Hotel	26	36	17	79	18
Office	67	117	18	202	50
Retail	18	11	35	64	10
Restaurant	37	22	72	131	20
Total	**273**	**246**	**450**	**969**	**202**
Existing Uses	31	54	8	93	23
Net New Trips	**242**	**192**	**442**	**876**	**179**

Note: [1] "Other" mode includes bicycles, motorcycles and taxis.
Source: *SF Guidelines*; 1990 U.S. Census; Wilbur Smith Associates, January 2003.

Overall, approximately 60 percent of the person trips would travel within San Francisco. About 40 percent of the person trips would travel to and from locations outside San Francisco, with 14 percent to and from the East Bay, 10 percent to and from the South Bay, 5 percent to and from the North Bay, and 11 percent outside the region.

Parking demand generated by the project was separated into long-term (typically residential and employee parking) and short-term demand (typically visitor and patron parking). For the residential units, the long-term demand is based on the number and size of the units. For the office, retail and restaurant uses, the long-term demand is based on the number of employees and the average auto mode split and average vehicle occupancy rates; the short-term demand is based on the number of total daily visitors by auto and an average turnover rate. The residential uses would generate a demand for about 424 spaces, the hotel would generate a demand for about 41 spaces, the office would generate a demand for about 148 spaces, and the restaurant and retail uses would generate a total parking demand for about 29 spaces.

Delivery/service-vehicle trip generation and demand for loading spaces for the project were estimated based on the methodology and assumptions provided in the *SF Guidelines*. In total, the project would generate about 76 daily delivery/service-vehicle trips. The project would have a demand for about five loading docks during the peak hour of loading activities and four loading docks during the average hour of loading activities. It is anticipated that most of the delivery/service-vehicles that would be generated by the project would consist of small trucks and vans, with most of the activity occurring between 10:00 a.m. and 1:00 p.m.

EXISTING-PLUS-PROJECT CONDITIONS

Traffic Impacts

The project would generate about 88 inbound and 91 outbound net new vehicle trips during the weekday p.m. peak hour. These trips were distributed to the local and regional roadway network based on the origin/destination of each trip (from the trip distribution rates), the street directions and the project driveways. Under Existing-plus-Project conditions, as shown in Table 3, five of the six study intersections would continue to operate at the same service levels as under Existing conditions, while the intersection of Mission and Beale Streets would change from LOS B to LOS C. All study intersections would operate at LOS C or better.

The project would add traffic to existing queues of vehicles during the red phase at the signalized intersections. During the p.m. peak hour, there is a heavy southbound right-turn volume from Beale Street to Howard Street, which typically does not extend north of the Transbay Terminal ramps. Vehicles exiting the project driveway and continuing south on Beale Street would have

Table 3: Intersection Levels of Service - Weekday P.M. Peak Hour

Intersection	Existing		Existing plus Project		2020 Cumulative	
	Delay	LOS	Delay	LOS	Delay	LOS
Fremont/Market	15.2	C	16.2	C	34.4	D
Fremont/Mission	21.8	C	24.6	C	30.5	D
Fremont/Howard	20.1	C	21.1	C	42.4	E
Fremont/Folsom	7.7	B	7.8	B	26.8	D
Beale/Mission	14.9	B	16.7	C	33.0	D
Beale/Howard	16.2	C	17.6	C	>60	F

Notes:
Delay presented in seconds per vehicle.
Source: Wilbur Smith Associates, April 2002, and January 2003.

sufficient distance to merge into the middle shared through-right lane, as the majority of the project-generated vehicles are expected to continue south on Beale Street. The existing evening commute period carpool pickup occurring on the east side of Beale Street between Howard and Folsom Streets would not be affected by project-generated vehicles on Beale Street.

During the morning commute period there is extensive passenger drop-off activity related to the transbay casual carpools. The majority of this activity occurs at the intersection of Fremont and Howard Streets, but drop-offs also occur along the east curb of Fremont Street between Howard and Market Streets. Vehicles destined to and from the project using the Fremont Street driveway would not interfere with these drop-off operations.

To accommodate the proposed project driveway on Fremont Street, the existing midblock pedestrian crosswalk across Fremont Street from the project site to the Transbay Terminal would need to be eliminated, or relocated as part of the Transbay Terminal project. If eliminated, pedestrians would need to use the crosswalk at the intersection of Fremont and Mission Streets. The existing midblock traffic signal, which is used to facilitate Muni buses exiting the Transbay Terminal loop, would remain. With the proposed Transbay Terminal project, the midblock traffic signal and pedestrian crosswalk are proposed to be relocated south to Natoma Street (see the second bullet item in "Relationship to Proposed Transbay Terminal and Caltrain Extension" on p. 123).

Drivers exiting the project driveway at Fremont Street would need to yield to upstream northbound traffic, as well as buses exiting the Transbay Terminal loop, across the street and slightly downstream from the project driveway. Drivers exiting the project driveway would be able to see whether the northbound traffic has a green phase or red phase at the midblock signal, as the overhead signal is located at the northern end of the proposed project driveway. However, drivers exiting the project driveway would not be able to see what the signal indication is for buses. Project vehicles would access Fremont Street during the red phase of this midblock signal as well as during the green phase when there are gaps in the traffic flow. Field observations during the a.m. and p.m. peak periods indicate that there are sufficient gaps in the northbound traffic flow, due to offsets in signal timing along Fremont Street and the midblock signal, for vehicles to exit the driveway.

Due to the low traffic volumes exiting the Fremont Street driveway (about 40 vehicles during the p.m. peak hour), it is not anticipated that a separate traffic signal would be required for the driveway. As part of the proposed project, the project sponsor would request the Department of Parking and Traffic to install a flashing red light across from the project driveway (at project sponsor's expense) advising motorists exiting the driveway to yield to traffic, including buses, on Fremont Street. In addition, signage indicating "Yield to Buses" would be placed at the project driveways on both Beale and Fremont Streets.

In summary, the proposed project would not cause LOS at study intersections to operate below an acceptable LOS C, and would not substantially interfere with bus operations or carpool operations on Fremont and Beale Streets. Therefore, the project would not cause significant traffic impacts.

Transit Impacts

The project would generate about 62 inbound and 130 outbound net new transit trips during the weekday p.m. peak hour. The outbound transit trips were assigned to the Muni and regional transit screenlines based on the destination of each trip and the existing distribution of trips within the screenlines. Of the 130 outbound trips, about 75 would cross Muni screenlines and about 45 would cross regional screenlines. The remaining 10 would reach their destinations before crossing any screenlines. Of the regional trips, 30 were assigned to the East Bay, 5 to the North Bay, and 10 to the South Bay in the weekday p.m. peak hour.

Under Existing-plus-Project conditions, the four Muni screenlines and the three regional transit screenlines would continue to operate within their respective capacity utilization and load factor standards. In the immediate vicinity of the project site, transit lines generally have available capacity during the weekday p.m. peak hour that would accommodate inbound and outbound transit trips from the proposed project. The new inbound transit trips generated to the project site would not substantially affect transit service in the inbound direction.

It is anticipated that vehicles entering and exiting the project driveways would not conflict with current bus operations. On Fremont Street, which runs one-way in the northbound direction, the east curb lane is a right-turn-only lane and contains bus stops for seven Golden Gate Transit commuter service bus lines, the Muni 10-Townsend, and the Muni 76-Marin Headlands (Sundays only). The project driveway would be at and south of the existing location of the mid-block crosswalk (which would be eliminated or relocated as part of the proposed Transbay Terminal project, as discussed below), and would not affect the adjacent Golden Gate Transit and Muni bus stops. Some Golden Gate Transit buses currently encroach into the pedestrian crosswalk; if this were to continue after project completion, the buses could occasionally temporarily block the project driveway.

As indicated in the previous section, vehicles exiting the proposed project driveway onto Fremont Street would be required to yield to upstream traffic (from the south) and downstream buses (to the north) exiting the Transbay Terminal loop as the loop is presently configured. Field observations indicate that sufficient gaps do exist in the northbound traffic flow for vehicles to exit the proposed project driveway without impacting buses leaving the Transbay Terminal loop. The existing midblock signal is proposed to be modified to install a flashing red light across from the Fremont Street project driveway, and signage indicating "Yield to Buses" would be placed at the project driveways on both Beale and Fremont Streets.

Currently, Muni trolley coaches operate on Fremont, Mission and Beale Streets and support poles are located on Fremont and Beale Streets, with overhead wires attached via eyebolts to the existing 301 Mission Street building. The project may be required to allow Muni to install eyebolts in the building to support the overhead wire system.

Parking

The San Francisco Planning Code does not require provision of off-street parking for any land use except dwelling units in the C-3 Districts, where the project is located (see Planning Code

Section 161c); the requirement is one space per four residential units, or 1:4, in the C-3 Districts. Commuter parking is discouraged for non-residential uses; parking is allowed at up to 7 percent of the gross floor area of commercial uses as an accessory use (see Planning Code Section 204.5). The project would be required to provide 80 off-street parking spaces (320 ÷ 4) for the residential units. Under Planning Code Section 204.5, accessory parking associated with the residential use equivalent to 150 percent of the required supply, or 120 spaces could be allowed without special authorization. Accessory parking for the non-residential component is proposed at 7 percent of the remaining 400,000 gsf, or an additional 80 spaces.[4] The combined allowable required and accessory parking would total 200 parking spaces. Overall, the project would provide 400 parking spaces, exceeding the Code requirement of 80 spaces.[5] Of the 400 spaces, 320 spaces would be dedicated to residential parking and 80 would be available for employees and patrons of the office, hotel, and retail/restaurant uses. The project sponsor has applied for a Conditional Use authorization for parking in excess of 150 percent of required residential parking. The project would provide 16 handicap-accessible parking spaces, as required, within the total of 400 parking spaces.

The project would generate a parking demand of about 424 spaces for residents, 41 spaces for overnight hotel guests, 134 spaces of long-term parking for hotel/office/retail/restaurant employees, and 43 spaces of short-term parking for office/retail/restaurant visitors, for a total of about 642 spaces. The calculated parking demand was further broken down for weekday midday and weekday evening conditions, and compared to the proposed supply.

During the midday, the long-term and short-term parking demand generated by the hotel/ office/retail/restaurant uses would be 188 spaces (145-space demand for long-term parking from employees, plus 43-space short-term parking demand from visitors). The weekday midday residential parking demand was estimated to be about 80 percent of the total residential demand of 424 spaces, or about 339 spaces, and the weekday midday hotel guest parking demand was estimated to be about 80 percent of the overnight hotel demand of 30 spaces, or about 24 spaces.[6] The 188-space midday parking demand generated by the hotel/office/retail/restaurant uses and the midday hotel guest demand of 24 spaces (212 spaces total) could not be accommodated within

[4] The number of commercial accessory parking spaces was calculated as follows: 400,000 gsf x 0.07 = 28,000 / 350 sf per space = 80 spaces. These spaces also could be used for overflow residential parking.

[5] Planning Code Sections 223, 204.5, and 157.

[6] Institute of Transportation Engineers, "Shared Parking Planning Guidelines," August 1995.

the 80 parking spaces proposed for these uses in the project parking garage. During the midday, these uses would have a shortfall of 132 spaces.

In addition, the 339-space midday residential parking demand would exceed the 320 spaces dedicated to residential uses, and therefore a portion of the residential demand would need to be accommodated in on-street spaces or in other public off-street parking facilities, or by a change in travel modes. The residential component would have a shortfall of between about 19 and 104 parking spaces, depending on where residents were able to secure parking.

Overall, the project would have a midday shortfall of approximately 151 to 236 spaces. With this range of shortfall, off-street parking occupancy in the study area would increase from 80 percent to about 86 percent of capacity. Parking facilities are considered to be at capacity when about 90 to 95 percent of the spaces are full, because at these levels drivers must circulate throughout the facility to locate a vacant space. Thus, with off-street parking at 86 percent of capacity during certain peak times, there would be sufficient off-street available parking supply in the study area to accommodate the proposed project's parking demand. Some building users would be likely to park further from their destination or change travel modes. Given the project's high transit accessibility, some building users may switch from drive to transit modes and be dispersed over the many transit lines in the near vicinity.

The evening parking demand would consist of the residential parking demand of 424 spaces, as well as the overnight hotel demand of 41 spaces. During the evening, it is anticipated that the parking demand associated with the hotel employees and the office and retail/restaurant uses would be minimal, and would be accommodated within the project garage. The 41-space parking demand generated by the hotel guests could be accommodated in the project garage. The residential parking demand of about 424 spaces could not be accommodated in the residential parking supply of 320 spaces, resulting in a shortfall of about 104 spaces. During the evening hours, both on-street and off-street parking facilities in the vicinity of the project site currently have spaces available. Any residential parking demand not accommodated at the project site could be accommodated at nearby off-street facilities; the existing 17 percent area-wide overnight parking occupancy rate would increase, but not to a degree that would make spaces difficult to find. A portion of the shortfall could also be accommodated, at night only, in the non-residential accessory parking spaces.

In summary, the project parking shortfall of 104 to 236 spaces could be accommodated within the parking study area near the project site. Thus, the project would not result in significant primary or secondary parking impacts resulting from the parking shortfall.

Pedestrian Impacts

Pedestrian trips generated by the project would include walk trips to and from the project, plus walk trips to and from the local and regional transit operators and walk trips to and from nearby parking facilities. Overall, the project would add about 634 net new pedestrian trips (442 walk/other trips and 192 transit trips) to the surrounding streets during the weekday p.m. peak hour. For purposes of the pedestrian analysis of midday conditions, it was assumed that a similar number of pedestrian trips would be generated by the project during the midday peak hour.

Table 4 presents the results of the sidewalk analysis. With the project, all sidewalk study locations would operate at LOS D or better, including the Fremont Street location which currently operates at LOS E during the p.m. peak hour. The sidewalk on Fremont Street would be widened from 15 feet to about 24 feet by a building setback at the corner of Fremont and Mission Streets. This area is the most constrained pedestrian location along the Fremont Street frontage, with an effective width of four feet after accounting for the bus shelter. Widening it from an effective width of 4 feet to 11 feet, as proposed by the project, would provide additional walking space there, increasing the effective sidewalk width adjacent to the existing bus shelter and at the Mission and Fremont Streets corner. This wider sidewalk would improve existing pedestrian LOS from E to D and would reduce conflicts between pedestrians and bus patrons waiting for Muni and Golden Gate Transit buses. Thus, project-generated pedestrian travel would not cause significant impacts on adjacent sidewalks.

The project would increase the number of pedestrian trips on study area sidewalks, as well as the number of vehicles crossing the sidewalk at the project driveways on Fremont and Beale Streets. As pedestrian and vehicle volumes increase, the potential for vehicle/pedestrian conflicts at the driveways would increase, and would result in increased delays to both pedestrians and vehicles. These delays would be typical of those found in the City's urban environment. They would not be substantial and would not result in significant environmental impacts.

Table 4: Pedestrian Levels of Service on Adjacent Sidewalks - Existing-plus-Project (Weekday Midday and P.M. Peak Hour Conditions)

Peak Hour/Sidewalk Location	Existing		Existing plus Project	
	p/m/f[1]	LOS	p/m/f	LOS
Midday Peak Hour				
Mission [2]	4.1	C	7.0	D
Fremont [3]	9.2	D	5.8	C
Beale [4]	5.4	C	6.4	C
PM Peak Hour				
Mission [2]	4.2	C	7.1	D
Fremont [3]	11.6	E	6.8	D
Beale [4]	5.6	C	6.7	D

Notes:
[1] p/m/f = pedestrians per minute per foot.
[2] Mission Street sidewalk width is 15 feet, and the effective width calculated as 10 feet.
[3] Fremont Street sidewalk width is 8 feet at the most restrictive point, and the effective width is calculated as 4 feet. On other parts of the Fremont Street sidewalk adjacent to the site the effective width is 11 feet. Under Existing-plus-Project conditions, the project building would be set back at the most restrictive point, and the effective sidewalk width therefore would increase to 11 feet.
[4] Beale Street sidewalk width is 10 feet at the most restrictive point, and the effective width is calculated as 6 feet. At other points adjacent to the project site the effective width is 19 feet; south of the site it is 6 feet.

Source: Wilbur Smith Associates, April 2002 and January 2003.

There currently is a midblock traffic signal and pedestrian crosswalk across Fremont Street. With construction of the project, the traffic signal would remain to control traffic for buses exiting from the Transbay Terminal loop; however, to allow for the project driveway, the crosswalk would need to be eliminated, or relocated. If the crosswalk were eliminated, pedestrians would need to use the crosswalk at the intersection of Fremont/Mission Streets. It is not anticipated that the addition of the pedestrians currently using the midblock crosswalk would substantially affect the operations of the crosswalks at the intersection of Fremont and Mission Streets.

The existing pedestrian bridge crossing Beale Street south of the Mission Street intersection was installed as part of construction of the 201 Mission Street building. It provided a safe means for pedestrians to cross when a freeway on-ramp was located at the Beale and Mission Streets intersection. The ramp and freeway segment were removed after the 1989 Loma Prieta earthquake, and the Mission and Beale Streets intersection no longer carries the same large volumes of traffic that necessitated the bridge. The bridge continues to be used by some

pedestrians; it provides direct access to the second level of the 201 Mission Street building. While not proposed as part of the 301 Mission Street project, if the bridge were removed, the existing ground-level pedestrian crosswalk across Beale Street could safely accommodate pedestrian traffic that uses the bridge. The Beale Street sidewalk adjacent to the project site would be 10 feet wider for the portion of its length now occupied by the pedestrian bridge access escalators.

Bicycle Impacts

The project would supply 17 bicycle parking spaces adjacent to the loading bay, with access from the loading bay and from Mission Street via the office lobby, as required by Planning Code Section 155. The project would not be required to provide shower and locker facilities because the primary use of the project would be residential; however, the project would provide four showers and eight lockers on the second level of the office space.

The project site is within convenient bicycling distance of downtown San Francisco and the Financial District, plus major transit centers; therefore, a portion of the "other" trips generated by the project would be bicycle trips. In addition, there are several bicycle routes in the vicinity of the project site. Although the project would result in an increase in the number of vehicles in the vicinity of the project site, the increase would not be substantial enough to affect bicycle circulation. The project driveways would not be located on any bicycle route, and therefore bicycle routes and bicycle lane operations would not be affected.

Loading

Planning Code Section 152 would require the project to provide five off-street loading spaces: three spaces for the residential use, one space for the extended-stay hotel use, and one space for the office use. Since the project would provide three full-size and four van and small-truck spaces on site, it would meet the Planning Code loading requirements. All loading spaces would meet the dimensions required in the Planning Code. The proposed supply would be sufficient to accommodate the estimated peak loading hour demand of five loading spaces.

Access to the ground-floor loading bay would be from Fremont Street and the internal drive-through. The loading bay would contain a loading dock with three full-size spaces (55 by

12 feet), two van spaces (20 by 8 feet), and a trash area, with access to the freight elevators located inside the service entry from the loading dock. Two van spaces would be provided in the first subsurface level of the garage adjacent to the freight elevators. These elevators would provide access to all floors. It is anticipated that most deliveries to the residential, hotel, office, and retail/restaurant uses would use the loading bay. The ground-floor loading bay would have a dock master/security guard who would be responsible for ensuring that only authorized vehicles use the loading spaces.

For passenger loading/unloading, an off-street porte cochere would be provided adjacent to the extended stay hotel and residential lobbies, with access from both Fremont and Beale Streets. This zone would provide space for four vehicles to actively load/unload passengers at one time. No valet parking is proposed for either the residences or the extended-stay hotel.

Construction Impacts

It is anticipated that construction of the project would take approximately 36- to 48-months, to begin in early 2003 and be completed in late 2005. Construction-related activities would typically occur Monday through Saturday from 7:00 a.m. to 6:00 p.m. It is anticipated that work may occasionally occur earlier and later and on Sundays, on an as-needed basis.

Construction staging would occur primarily within the project site and the adjacent sidewalks on Mission, Beale and Fremont Streets. To accommodate construction staging on the sidewalk and to provide temporary pedestrian walkways, the parking lanes on Mission and Beale Streets would be closed during the entire 36- to 48-month construction period. The Muni and Golden Gate Transit bus stops on Fremont Street would be temporarily relocated through coordination between the transit authorities and the project sponsor. A potential site for relocation of the Muni and/or Golden Gate Transit buses is the area under the existing Transbay Terminal ramps directly south of the project site, which would require temporary removal of about six metered parking spaces. Alternately, Golden Gate Transit buses could be relocated north of the intersection of Fremont/Mission Streets to the location of the current temporary bus stop for the 28, 32 and 34 bus lines.

Since the curb lane is a right turn only travel lane, a temporary pedestrian walkway may not be feasible on this portion of Fremont Street. On Mission Street, the use of the parking lane during the construction period would temporarily eliminate 11 metered parking spaces. On Beale Street

it is anticipated that only 10 feet of the sidewalk would be required for construction staging and that the eastern 10 feet containing the pedestrian overcrossing structure would not need to be closed. If the entire 23-foot-wide sidewalk were needed for construction, installing a temporary pedestrian sidewalk on Beale Street would require temporary closure of a travel lane for the portion of the street adjacent to the 23-foot-wide sidewalk, and the use of two parking spaces for the portion adjacent to the 10-foot-wide sidewalk at the southern end of the project site.

If it is determined that temporary traffic lane closures on Fremont Street and Beale Street would be needed, the closures would be subject to review and approval by the Department of Public Works (DPW) and the Interdepartment Staff Committee on Traffic and Transportation (ISCOTT). These agencies review sidewalk and lane closures to minimize effects on local traffic, including transit.

During the construction period the poles supporting the Muni overhead wire system on Fremont, Mission and Beale Streets would need to be maintained. Since the existing 301 Mission Street building, which currently has eyebolts supporting the overhead wires, would be demolished, additional poles would need to be installed on Mission and Beale Streets to maintain Muni operations. This effort would be coordinated by the project sponsor with Muni's Overhead Lines Department.

During the construction period, there would be a flow of construction-related trucks into and out of the site. It is anticipated that the majority of the construction-related truck traffic would use I-80/U.S. 101 and I-280 to access the project site from the East Bay and South Bay. There would be an average of 20 to 100 construction trucks per day, depending on the phase. The maximum number of trucks would be 12 per hour. The impact of construction truck traffic would be a temporary lessening of the capacities of streets due to the slower movement and larger turning radii of trucks, which may temporarily increase delays for both traffic and Muni operations.

On average, there would be between 30 and 200 construction workers per day at the project site, depending on the phase. The trip distribution and mode split of construction workers is not available. However, it is anticipated that the addition of the worker-related vehicle- or transit-trips would not substantially affect the transportation conditions, as any impacts on the vehicle and transit network would be similar to, or less than, those associated with the project. In addition, the construction workers would cause a temporary parking demand. Since the nearby parking facilities currently have spaces available during the day, it is anticipated that construction

worker parking demand could be accommodated without substantially affecting areawide parking conditions. In addition, it is anticipated that construction workers would be able to park within the project's parking facilities after their construction (by about the thirteenth month).

Construction activities associated with the project may occur at the same time as other proposed projects in the vicinity of the site, including the ongoing Bay Bridge West Span Seismic Retrofit Project and the proposed Transbay Terminal / Caltrain Downtown Extension / Redevelopment Project. The construction activities associated with these projects would affect access, traffic operation and pedestrian movements. The construction cycles of each of the projects would differ depending on the location and scale of the project. Each individual project sponsor would work with the various departments of the City to develop a detailed and coordinated plan that would address construction vehicle routing, traffic control and pedestrian movements on specific streets in the construction area.

Construction of additional development in the project vicinity could intensify construction impacts should construction occur at the same time, or extend construction impacts over a longer period. Construction impacts would occur over a finite period, and would be phased so that impacts would not be permanent and activities would be intermittent during the construction period.

Construction Activity Overlap With Bay Bridge Seismic Retrofit Project

The construction schedule for the proposed project would overlap with the seismic retrofit of the Bay Bridge west span and its approaches. Work on the Western Span of the Bay Bridge is currently underway and is expected to be completed by the end of 2003. There would be about a one-year overlap between construction of the proposed project and the Bay Bridge retrofit work on the towers and superstructure. Work on the West Approach and the Bayshore Viaduct will be conducted throughout the duration of project construction.

Ramp closures associated with the West Approach phase of the seismic retrofit project would somewhat affect access to and from the project, during both the project's construction and operation. Some on-ramps would be closed temporarily, during weekends, during the West Approach phase However, no streets that provide access to the ramps (e.g., First Street, Fremont Street) are anticipated to be closed. Overall, Bay Bridge construction activity is anticipated to be

concentrated in the area adjacent to the Bay Bridge span and approach, and is not expected to substantially affect traffic operating conditions in the vicinity of the proposed project.

2020 CUMULATIVE CONDITIONS

Methodology/Approach

The San Francisco County Transportation Authority (SFCTA) countywide travel demand forecasting model (SFCTA Model) was used to develop the travel forecasts for cumulative development and growth through the year 2020 in the region, as well as to determine travel demand to and from the South of Market area (the area roughly bounded by The Embarcadero, Market Street, South Van Ness Avenue and King Street). This approach results in a cumulative impacts assessment for year 2020 conditions that takes into account both the future development expected in the South of Market area, as well as the expected growth in housing and employment for the remainder of San Francisco and the nine-county Bay Area.

The SFCTA countywide model estimates future traffic and transit travel demand for the entire nine-county Bay Area region based on land use and employment forecasts prepared by the San Francisco Planning Department for the county, plus regional growth estimates developed and adopted by the Association of Bay Area Governments (ABAG) in 1998[7] for the remainder of the Bay Area region. However, since these land use and employment forecasts did not include some of the projects recently proposed in the South of Market area, they were modified by the San Francisco Planning Department to incorporate projects such as the Rincon Hill Rezoning, the South of Market Redevelopment Area Plan, the Mid-Market Redevelopment Area Plan, and the Transbay Terminal projects, as well as projects that have recently been approved or entitled. As a result, the year 2020 cumulative conditions forecasts used in the analysis exceed the ABAG forecasts for San Francisco for employment by about 2.8 percent, and household population by about 1.4 percent.

The SFCTA Model divides the entire Bay Area region into approximately 1,750 geographical areas, known as Transportation Analysis Zones (TAZs); about 800 of them are within San Francisco. It estimates the future travel demand for each TAZ, determines the origin and destination and mode of travel (auto, transit, walk and bike) for each trip, and assigns those trips

[7] Association of Bay Area Governments, *Projections 1998*, December 1997.

to the transportation system (roadway network and transit lines). The SFCTA Model output was used to determine traffic volumes at the study intersections and transit ridership at the Muni screenlines using an approach and methodology developed with and approved by the San Francisco Planning Department.

To develop 2020 Cumulative turning movement volumes at the study intersections, two steps were undertaken using SFCTA Model output: determine the increase in vehicles due to development outside of the study area, and determine the vehicle trips on a block-by-block basis associated with development within the study area. Between 2000 and 2020 Cumulative conditions, weekday p.m. peak hour traffic volumes at the study intersections are anticipated to increase between 20 and 60 percent.

As planned and analyzed in the *Alternatives to the Replacement of the Embarcadero Freeway and Terminal Separator Structure FEIS/FEIR*,[8] the Fremont Street off-ramp from westbound I-80 will be modified. The current off-ramp, which touches down on Fremont Street mid-block between Howard and Folsom Streets, will be reconfigured to establish a second leg of the off-ramp that will provide access to eastbound Folsom Street and the Waterfront. The other leg of the intersection would continue to provide access to northbound Fremont. With the new configuration drivers could divert to Folsom Street or continue under the existing pattern of circulation.

Future 2020 Muni ridership forecasts were developed for weekday p.m. peak hour conditions from SFCTA Model output. The increase in weekday p.m. peak hour transit ridership between 2000 and 2020 Cumulative conditions was used to develop a growth rate for each screenline, which was then applied to the existing ridership for each subcorridor within the screenline. Ridership at the Northeast Screenline is projected to grow by 21 percent, at the Northwest Screenline by 17 percent, at the Southeast Screenline by 28 percent and at the Southwest Screenline by 13 percent. Future regional transit forecasts were based on information received from the individual service providers. Between 2000 and 2020, transit ridership at the regional screenlines is projected to grow at the North Bay Screenline by 42 percent, the East Bay Screenline by 72 percent, and the South Bay Screenline by 233 percent (due primarily to extension of BART to the San Francisco Airport and Millbrae).

[8] San Francisco Planning Department, *Alternatives to Replacement of the Embarcadero Freeway and Terminal Separator Structure Final EIS/EIR*, Planning Department Case File Nos. 92.202E & 94.060E, State Clearinghouse No. 92083065, certified September 1996.

The major transit improvements identified to occur by 2020 that would affect transit service in San Francisco are the Third Street Light Rail Project and the BART extension to the San Francisco Airport and Millbrae.

Cumulative Traffic Impacts

Table 3, p. 108, presents the 2020 cumulative weekday p.m. peak hour intersection operating conditions. Overall, two of the six study intersections would operate at LOS E or F under 2020 cumulative conditions; no study intersections operate, or would operate, below LOS D under Existing and Existing-plus-Project conditions. In general, the poor operating conditions at the intersection of Fremont and Howard Streets (LOS E, at capacity) and Beale and Howard Streets (LOS F, congested) would be caused to a large extent by the high traffic volumes generated by new development anticipated for the Rincon Hill area that would travel westbound on Howard Street.

The project's contribution to future traffic growth in 2020 was assessed for a larger number of intersections than the Existing-Plus-Project scenario, to address the wider area that could be affected by the Transbay Terminal and Transbay Redevelopment Projects. Sixteen intersections in this wider study area (generally between Second Street and The Embarcadero, and between Market and Bryant Streets) would operate at LOS E or F in 2020 under cumulative growth conditions. The project would not make substantial contributions to cumulative growth at 13 of these 16 intersections. The project would make substantial contributions, ranging from 6 to 9 percent of the growth, to cumulative growth at the intersections of Fremont and Howard Streets and Beale and Howard Streets, the two project-level traffic study intersections that would operate at LOS E and F in 2020. The project would also make a substantial contribution of about 6 percent to growth at the intersection of The Embarcadero and Bryant Street, included in the wider study area for 2020 future conditions. However, for the traffic movements that determine overall performance at these three intersections, the project's contribution would be smaller, ranging from about 1 to about 3 percent and contributing no more than 30 vehicles at each intersection in the p.m. peak hour. This would not represent a considerable contribution to 2020 cumulative conditions, and the project would not have a significant cumulative traffic impact.

Cumulative Transit Impacts

Under 2020 Cumulative conditions, three of the four Muni screenlines would operate at less than capacity. The Southeast screenline would operate at capacity. All regional transit operators

would continue to operate at less than their load factor standards, except BART to the South Bay, which would operate at 139 percent of its capacity, slightly higher than the load factor standard of 135 percent.[9] The project would contribute less than 1.0 percent to the cumulative Muni and regional transit ridership, and alone would not substantially affect the peak hour capacity utilization of each screenline. Therefore, the project would not have a significant cumulative impact on transit.

RELATIONSHIP TO PROPOSED TRANSBAY TERMINAL AND CALTRAIN EXTENSION

The proposed reconstruction of the Transbay Terminal, extension of Caltrain to downtown San Francisco and redevelopment of the Transbay area is currently being analyzed as part of the *Transbay Terminal / Caltrain Downtown Extension / Redevelopment Project Draft EIS/EIR*.[10] A partial acquisition of the 301 Mission Street project site has been identified in the Transbay Draft EIS/EIR, for construction of the new terminal with a downtown extension of Caltrain. Portions of the project site (Block 3719, Lot 17, containing the 129 Fremont Street and 124 Beale Street buildings) would be needed to provide the space to accommodate Caltrain platforms two levels below grade and a train mezzanine level, for either of the two alignments as currently configured for analysis purposes in the Draft EIS/EIR. Although estimated to be minimal, the extent of the partial acquisition of the project site has not been established, as detailed engineering plans of the proposed Transbay Terminal/Caltrain extension have not yet been developed.

If the 301 Mission Street project is built as currently proposed and analyzed in this EIR, the result may be increased costs to build the Transbay Terminal, required reconfiguration of the Transbay Terminal and Caltrain trackage with any of the Transbay Terminal Alternatives, or required modifications to the 301 Mission Street project.

However, if only a limited subsurface portion of the project site were needed to construct the below-grade levels of the proposed terminal, as for the Caltrain Second -to-Main alignment, it

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[9] BART staff has indicated that they would be able to lengthen the South Bay trains, if necessary, to accommodate future demand. Currently, two of the four lines have 10-car trains, one line has 9-car trains and one line has 8-car trains. With this change, the load factor would be less than the BART standards.

[10] Federal Transit Administration, City and County of San Francisco, Peninsula Corridor Joint Powers Board, and San Francisco Redevelopment Agency, *Transbay Terminal /Caltrain Downtown Extension /Redevelopment Project Draft EIS/EIR*, State Clearinghouse No. 95063004, Planning Department Case No. 2000.0492E, October 2002.

may be possible to reconfigure the subsurface track requirements or to limit those requirements to only a minor portion of the project subsurface garage, which would result in fewer parking spaces provided in the project (see Alternative E-1 in Chapter VI, p. 161). The extent of the impact on the project cannot be determined with certainty, until more detailed engineering is performed for the Transbay Terminal.

For the extension of Caltrain to downtown via the Second-to-Mission alignment, one of the two Caltrain extension alignments, tracks would have to be aligned diagonally across the 301 Mission project site. Acquisition of a larger subsurface portion of the project site would be required (Block 3719, Lots 1 and 17 containing 301 Mission Street and 129 Fremont Street) (see Alternative E-2 in Chapter VI, p. 162).

With the new Transbay Terminal, Muni and Golden Gate Transit buses would enter the new surface Terminal passage midblock on Beale Street, south of the proposed project site. Buses would exit the Terminal from the east side of Fremont Street between Mission and Natoma Streets along the same passage as the entrance on Beale Street. The potential for conflicts between vehicles destined to and from the proposed project and the buses destined to and from the street-level terminal was examined at both the Beale Street and Fremont Street driveways, as summarized below.

- On Beale Street, the proposed project driveway would be north of the entrance to the new Terminal. When a new Transbay Terminal is constructed, two parking spaces on the west curb of Beale Street immediately north of the project driveway would be eliminated to allow for queuing space for vehicles destined to the proposed project driveway. Vehicles destined to the proposed project driveway would be able to turn from the travel lane into the west curb (parking) lane prior to entering the driveway, which would reduce the potential for conflicts between vehicles destined to the proposed project and buses destined to the new Transbay Terminal.

  Vehicles exiting the proposed project driveway via Beale Street would need to wait for gaps in the traffic prior to entering the traffic stream. The longer green time allocated to eastbound/westbound Mission Street and the lower volumes accessing Beale Street from Mission Street (due to the transit lanes on Mission Street) provide for gaps in the traffic stream. During the peak commute periods, the potential exists that buses queuing to access the new Terminal may block the proposed project driveway, and there could be some conflicts between buses and vehicles entering and exiting the proposed project driveway.

- On Fremont Street, as part of the proposed Transbay Terminal project, the existing midblock traffic signal and pedestrian crosswalk (if still in place) would be relocated south to Natoma

Street to provide a separate signal phase for buses exiting the new Terminal to access Fremont Street. The proximity of the proposed project driveway to the new surface bus Terminal could result in conflicts between proposed project-generated vehicles and buses exiting the new Transbay Terminal. Vehicles destined to the proposed project driveway would be held at the new midblock signal at Natoma Street until buses exited the Terminal, and would not affect the new Terminal operations. For those vehicles already at the proposed project driveway when the buses receive a green phase, sufficient queuing space would be provided at the east curb lane (about 50 feet, or space for two vehicles) between the south edge of the driveway and the north edge of the first bus lane in the terminal. Buses leaving the Terminal would make a wide turn into the through lane, and would not turn into the east curb lane.

As with a standard driveway, vehicles exiting the proposed project would need to yield to upstream (from the south) traffic. Drivers exiting the proposed project driveway would be able to see whether the northbound through traffic or buses have the right-of-way. Vehicles exiting the driveway would turn into the right-most lane (the right-turn-only lane) or the lane directly adjacent (the through lane), and are not anticipated to substantially conflict with buses exiting the new Terminal.

For additional details on the impacts of the proposed Transbay Terminal and Caltrain Extension, see the *Transbay Terminal /Caltrain Downtown Extension /Redevelopment Project Draft EIS/EIR,*[11] and Alternative E in Chapter VI of this document, p. 158.

Construction of a Temporary Terminal for bus service during construction of a new Transbay Terminal and demolition of the existing structure is currently scheduled to begin in late 2004. If both projects move on schedule, construction could overlap with that of the proposed project at 301 Mission Street. Construction impacts would occur over a limited period, would not be permanent, and would be intermittent during the construction period. Therefore, cumulative construction impacts were found to be not significant.

[11] A copy of the Draft EIS/EIR can be reviewed on the internet at www.sfgov.org/tjpa

E. AIR QUALITY

SETTING

AMBIENT AIR QUALITY STANDARDS

National Ambient Air Quality Standards established by the U.S. Environmental Protection Agency and the California Ambient Air Quality Standards established by the California Air Resources Board define the criteria pollutants and target levels of pollutants for air quality planning. The state and federal ambient air quality standards are listed in Table 5. These standards are intended to protect the public health and welfare with an adequate margin of safety.

Table 5: State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS[a,c]	NAAQS[b,c]
Ozone[d]	1 hour	0.09 ppm	0.12 ppm
Carbon Monoxide (CO)	1 hour 8 hour	20 ppm 9.0 ppm	35 ppm 9 ppm
Nitrogen Dioxide (NO_2)	1 hour Annual	0.25 ppm NA	NA 0.053 ppm
Sulfur Dioxide (SO_2)	1 hour 24 hour Annual	0.25 ppm 0.04 ppm NA	NA 0.14 ppm 0.03 ppm
Inhalable Particulate Matter (PM_{10})[d]	24 hour Annual	50 µg/m[c] 30 µg/m[c]	150 µg/m[c] 50 µg/m[3]
Sulfates	24 hour	25 µg/m[c]	NA
Lead	30 day Calendar Quarter	1.5 µg/m[c] NA	NA 1.5 µg/m[c]
Hydrogen Sulfide	1 hour	0.03 ppm	NA
Vinyl Chloride	24 hour	0.010 ppm	NA

Note:
[a] CAAQS = California Ambient Air Quality Standards.
[b] NAAQS = National Ambient Air Quality Standards.
[c] ppm = parts per million by volume; µg/m[3] = micrograms per cubic meter; NA = Not Applicable
[d] Additional NAAQS for ozone (8 hours > 0.08 ppm) and for fine particulate matter, $PM_{2.5}$ (24 hours > 65 µg/m[3], annual avg. >15 µg/m[3]) were adopted in 1997 but have not yet been implemented.

Source: California Air Resources Board 1999, http://arbis.arb.ca.gov/aqs/aaqs2.pdf.

They are designed to protect those segments of the public most susceptible to respiratory distress, known as sensitive receptors, such as asthmatics, the very young, the elderly, people weak from other illness or disease, or persons engaged in strenuous work or exercise. Healthy people can tolerate occasional exposure to air pollution levels somewhat above ambient air quality standards before adverse health effects are observed. Periodically, the standards are reviewed and updated to reflect improved understanding of the health effects. As shown in Table 5, for most pollutants the state-level standards are more stringent than the national standards.

AIR QUALITY CONDITIONS

Ambient Air Quality

The Bay Area Air Quality Management District (BAAQMD) is the regional agency responsible for air quality management in the San Francisco Bay Area. It operates a regional monitoring network which measures the ambient concentrations of six criteria pollutants including ozone, carbon monoxide, inhalable particulate matter (PM_{10}), nitrogen dioxide, sulfur dioxide, and lead. The stations operated in San Francisco are in the Civic Center area at 939 Ellis Street, and the Potrero Hill neighborhood at 10 Arkansas Street.

Data gathered from the San Francisco BAAQMD stations indicate the following:[1]

- Ozone concentrations between 1998 and 2001 did not exceed the state 1-hour ozone standard or the federal standards on any day in San Francisco. During this period, state and federal ozone standards were exceeded in the eastern counties of the Bay Area and in the Santa Clara Valley.
- Carbon monoxide (CO) concentrations between 1998 and 2001 ranged up to a maximum of 4.6 parts per million (8-hour). In recent years, the ambient air quality standards for CO have not been exceeded anywhere in the Bay Area.
- Particulate matter (PM_{10}) concentrations between 1998 and 2001 exceeded the state 24-hour standard in 10 percent or fewer of the samples per year in San Francisco. The state-level annual standards and the federal standards for PM_{10} were not exceeded in the Bay Area.
- Nitrogen dioxide, sulfur dioxide, sulfates and lead were within allowable maximum concentrations in San Francisco and the region.

[1] California Air Resources Board (CARB), Air Quality Data Statistics, website, http://www.arb.ca.gov/adam/, accessed April 2002.

Comparison of these data with those from other BAAQMD monitoring stations in the region indicates that San Francisco's air quality is among the least degraded of all developed portions of the Bay Area, primarily because San Francisco's prevailing winds tend to blow from the Pacific Ocean, transporting locally generated air pollution to elsewhere in the region and state.

The U.S. EPA designates the Bay Area as a whole an "unclassified (moderate) nonattainment area" for ozone, because of recent violations of the national ozone 1-hour standard. Because no violations of the carbon monoxide (CO) standards have occurred in the region in recent years, the U.S. EPA designates the Bay Area as a "maintenance area" for CO. Other pollutants currently meet national standards. For state-level air quality planning purposes, the Bay Area is classified by the California Air Resource Board (CARB) as a *serious* nonattainment area for ozone, and a nonattainment area for inhalable particulates (PM_{10}).

Local Air Emissions Sources

Mobile source, traffic-related emissions occur throughout the downtown area and around the project site; most notable are the heavy volumes of traffic along the Bay Bridge connector routes and the Transbay Transit Terminal ramps. Emissions due to traffic congestion dominate the localized air quality in the vicinity of the project. Existing emission sources at the project site include small stationary sources for the office uses (e.g., water heating or ventilation equipment).

IMPACTS

SIGNIFICANCE CRITERIA

A project would have a significant effect on the environment with respect to air quality if it would violate any ambient air quality standard or contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The BAAQMD recommends evaluating projects with the following significance thresholds:[2] (1) the project impact would be considered significant if it caused operation-related emissions equal to or exceeding an established threshold of 80 pounds per day of reactive organic gases (ROG), NOx, or PM_{10}, or caused CO concentrations to exceed the ambient standards or more than 550 pounds

[2] BAAQMD (Bay Area Air Quality Management District), *BAAQMD CEQA Guidelines, Assessing the Air Quality Impacts of Projects and Plans*, 1999.

per day of emissions; (2) the project impacts would also be considered to have a significant contribution to cumulative regional air quality effects if the project impacts would exceed these standards. If project air quality impacts would not exceed the BAAQMD thresholds, the project could still contribute to significant cumulative air quality impacts if the project is found to be inconsistent with the local general plan, which is part of the basis for regional air quality attainment plans.

METHODOLOGY

Regional emissions of ozone precursors (ROG and NOx) and PM_{10} caused by project-related traffic and minor emissions from project-related energy use were calculated using the URBEMIS7G computer model recommended by the BAAQMD and CARB.[3] Daily emissions of criteria pollutants from project-related traffic in 2003 and 2020 were estimated based on daily vehicle trips as estimated by the project's transportation analysis. The model combines information on trip generation with vehicular emissions data specific to different types of trips in the Bay Area (home-to-work, work-other, etc.) from the EMFAC7G model to estimate the project's contribution to regionwide daily emissions.

The potential for project-related traffic to cause localized CO violations near congested intersections was analyzed with a screening method prescribed by the BAAQMD. This screening method considers "worst-case" traffic and air quality conditions at the most heavily-impacted intersections. The worst-case conditions include placing receptors in locations that yield maximum exposure (e.g., along sidewalks adjacent to congested traffic) during peak traffic hours.

The BAAQMD recommends coordinating land uses as a means of preventing exposure of sensitive receptors to substantial pollutant concentrations. Because the surrounding land uses are not sources of toxic air contaminants, other than those that would be emitted by traffic throughout the downtown area, and because the proposed project would not locate any new sources of toxic air contaminants near sensitive land uses (e.g., residences, schools, day care centers), the project would not expose sensitive receptors to substantial pollutant concentrations. No further analysis of land use compatibility is necessary.

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[3] BAAQMD (Bay Area Air Quality Management District), *BAAQMD CEQA Guidelines, Assessing the Air Quality Impacts of Projects and Plans,* 1999.

PROJECT EFFECTS

Regional Impacts

Regional emissions associated with the proposed project are presented in Table 6. This table indicates that project-related daily emissions would not exceed the BAAQMD significance threshold for each of the pollutants analyzed. All emissions would be below the threshold of significance assuming full project development in 2003, and the project would be below the thresholds by a wide margin by the 2020 horizon year. The 2020 results are lower than those shown for 2003 because the mix of vehicles in use in 2020 is assumed to include fewer high-emission, older vehicles. As shown in Table 6, project-related increases in air emissions would have a less-than-significant impact on regional air quality.

Table 6: Project-Related Regional Emissions

	Pollutant (pounds per day)			
Scenario	ROG	NOx	CO	PM_{10}
Year 2003	30.7	23.5	190.2	8.3
Year 2020	9.9	15.2	62.2	8.1
BAAQMD Significance Threshold[1]	80	80	550[2]	80

Notes:
ROG = reactive organic gases; NO_X = nitrogen oxides; CO = carbon monoxide; PM_{10}= inhalable particulate matter.

[1] From BAAQCD, *CEQA Guidelines*, p. 16
[2] Requires a microscale impact analysis, if exceeded.

Source: Turnstone Consulting, 2002.

Localized Impacts

In addition to the project-related regional emissions, project-related traffic could result in localized "hot spots" or areas with high concentrations of carbon monoxide (CO) because of motor vehicle emissions around stagnation points such as major intersections and heavily traveled and congested roadways. Project-related traffic could add more vehicles as well as cause existing non-project traffic to travel at slower, less efficient travel speeds.

The BAAQMD recommends that a microscale air quality analysis be performed if any of the following three criteria are met: (1) daily project-related CO emissions are greater than 550 pounds/day; (2) project-related traffic causes a deterioration of intersection level of service (LOS) to LOS D, E or F; or (3) project-related traffic increases on any roadway link of 100 vehicles or more cause a 10 percent or greater increase in volume on that link.[4]

According to this screening methodology, project-related traffic would not require a microscale analysis because none of the above criteria would be met by the project. The daily project-related CO emissions would be substantially under 550 pounds per day (see Table 6). The project would not cause traffic increases of 10 percent or more on any nearby street. The project would contribute traffic to intersections operating at LOS B and C in the existing conditions and would not cause a deterioration of level of service to D, E, or F in the existing-plus-project conditions. Because project traffic would not substantially deteriorate the performance of the affected intersections, the project impacts to localized CO concentrations would not be significant.

Cumulative Impacts

The BAAQMD applies the regional thresholds for ROG, NO_X, and PM_{10} to the cumulative air quality analysis (see Significance Criteria, p. 127). Because the project would not exceed these thresholds in the future 2020 scenario, as shown in Table 6, the project would not be considered to adversely affect regional air quality conditions in the cumulative context.

However, as specified in the Significance Criteria, although regional emissions would not exceed the BAAQMD thresholds, cumulative air quality impacts could still result if the project were determined to be inconsistent with the local general plan. The proposed project would not require any amendment to the General Plan or the Downtown Area Plan to accommodate the proposed land uses or the overall density of the development. Therefore, the project-induced emissions would not be substantial, and project-related emissions would be consistent with the projections used in current air quality management plans.

[4] BAAQMD (Bay Area Air Quality Management District), *BAAQMD CEQA Guidelines, Assessing the Air Quality Impacts of Projects and Plans,* 1999.

F. GROWTH INDUCEMENT

Growth inducement under CEQA considers the ways in which proposed and foreseeable project activities could encourage and facilitate other activities that would induce economic or population growth in the surrounding environment, either directly or indirectly.[1] The Initial Study (see Appendix A, pp. 15-17) concluded that the project would not induce substantial growth or create a substantial demand for additional housing in San Francisco. This EIR section summarizes the possibilities for growth, and concludes that the project would allow additional population growth, but not to a significant level.

At full occupancy the existing buildings on the site are estimated to have accommodated a total of about 570[2] office and retail employees.[3] The proposed development would be expected to have a total of about 605 employees. This would be a net increase of about 35 employees on the site.

The net new increase in employment would be about 0.006 percent of total employment of 731,660 employees projected for San Francisco in year 2020, and it would be about 0.04 percent of employment growth of 102,800 jobs projected from 2000-2020.[4] The total increase in employment would be about 0.08 percent of total projected employment for San Francisco, and about 0.6 percent of the project employment growth.

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[1] State CEQA Guidelines, as amended January 1, 2001, Section 15126.2(d).

[2] Based on a standard multiplier of 275 sq. ft. per employee in office space, using San Francisco Planning Department transportation analysis guidelines and Keyser Marston Associates, Inc., *San Francisco Cumulative Growth Scenario: Final Technical Memorandum*, prepared for the San Francisco Redevelopment Agency, March 30, 1998 (hereinafter Keyser Marston Associates, Inc., March 1998). Retail employment density estimated at 350 sq. ft. per employee, based on San Francisco Planning Department transportation analysis guidelines.

[3] Prior to 1989, when the building at 345 Mission Street was on the site, there were an additional approximately 460 employees, for a total of 1,030. The demolished 345 Mission Street building (a total of about 170,150 gsf) contained 126,732 gsf of pre-existing office space. This building had to be demolished following the Loma Prieta earthquake. See *Letter of Determination*, Laurence Badiner, Zoning Administrator, San Francisco Planning Department, letter to Pamela Duffy, Esq., Coblentz, Patch, Duffy and Bass, July 8, 2002.

[4] Data from Association of Bay Area Governments, *Projections 2000*, located at http://www.abag.ca.gov/abag/overview/pub/p2000.

Based on standard household density factors (about 1.8 persons per dwelling unit) in use in San Francisco,[5] the proposed residential portion of the project is estimated to accommodate approximately 575 people. The City is projected to need 20,372 additional dwelling units by 2006, an average yearly need of about 2,716 net new dwelling units.[6] The proposed project would contribute about 320 units to the City's housing stock. The project would not create substantial demand for new housing.[7] The project's approximately 320 residential units would more than offset housing demand from the employment in the project. Because the units are proposed to be market-rate housing, they would not fulfill needs at all levels identified in ABAG's *Regional Housing Needs Determination*. However, as discussed in Chapter II, Project Description, p. 25, the project sponsor would be required to comply with the inclusionary housing requirements in Planning Code Section 315 on- or off-site or by payment of an in-lieu fee. The requirement varies between 5 and 17 percent, depending on the nature of approvals requested, when the building permit application was submitted, and method of compliance.

It is expected that some workers employed by businesses on the project site would want to live in San Francisco. In addition, some new jobs would be filled by individuals who already live and work in the City; those who live in the City but who were previously not employed or who worked outside the City; those who live in the surrounding communities; or those unable to afford to reside in the City. New workers would also increase demand for housing in other parts of the Bay Area. (See Appendix A, Initial Study, pp. 15-17, for further discussion of housing demand.)

Direct increases in housing and employment, such as those from the proposed project, could induce further growth in business and employment to provide a range of goods and services to

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[5] City and County of San Francisco Planning Department and San Francisco Redevelopment Agency, *Mission Bay Final Subsequent EIR*, Planning Department File No. 96.771E, SCH No. 97092068, Vol. IV, Appendices, Table C.6, p. C.5, certified September 17, 1998. The project proposes about 320 residential units.

[6] Association of Bay Area Governments, *Regional Housing Needs Determination 1999-2006*, located at http://www.abag.org/planning/housingneeds/99rhnd.htm.

[7] Based on an employed-resident density factor of 1.63 employee per household, the increase in employment due to project development would create an additional demand for about 28 residential units (35 net new jobs divided by a factor of 1.63 employees per household results in a demand for 22 residential units). Employed-resident density factor of 1.63 employee per household is from Keyser Marston Associates, Inc. and Gabriel Roche, Inc., *Jobs Housing Nexus Analysis, City of San Francisco*, July 1997, Section III, p. 32.

meet the needs of the residents and employees at 301 Mission Street. Some of the growth would occur locally in San Francisco, particularly in the area near the Transbay Terminal if the proposed redevelopment plan is adopted. Some growth could occur elsewhere in the City and in the region. The direct and indirect growth of the proposed project in San Francisco and the region is anticipated in ABAG's regional forecasts of employment, households, and population growth. While the increase in numbers of residents and employees on the project site would be noticeable to neighbors, these levels are common and accepted in high-density urban areas such as San Francisco.

Since the project does not have unusual labor requirements, it would be expected that project construction would meet its need for labor within the regional labor market for construction projects in San Francisco without attracting construction labor from areas beyond the region's borders.

The project would be an infill project in a densely developed urban area. It would not require new or expanded municipal infrastructure not already under consideration. In view of the above, there is no evidence to suggest the project would result in additional development in the vicinity of the project that would not otherwise occur.

IV. MITIGATION MEASURES PROPOSED TO MINIMIZE POTENTIAL ADVERSE IMPACTS OF THE PROJECT

Mitigation measures have been identified in this EIR and the Initial Study that would reduce or eliminate potential significant environmental impacts of the proposed project. Mitigation measures for noise, construction air quality, and archaeological resources have been included in the project and were listed in the Initial Study. The project would not cause significant project-specific traffic impacts or contribute substantially to cumulative traffic impacts. Because there would be significant cumulative traffic impacts in the future, a mitigation measure that would help to reduce traffic impacts has been identified but is not included in the project; this measure would not reduce cumulative impacts to less-than-significant levels. Improvement measures that would reduce impacts determined to be less than significant are also identified in this chapter. Most of the mitigation measures have been included in the project and some may be the responsibility of other agencies. Other measures may be required by decision makers as conditions of project approval if the project is approved.

Existing City, state and federal regulations require a variety of protective and other measures that would also serve to mitigate potential project impacts. These measures are not identified in this chapter; rather, they are assumed to constitute part of the project, and compliance with the measures would be monitored by the appropriate regulatory agencies. City-mandated controls on the project would include a limitation on construction noise (San Francisco Noise Ordinance, Article 29 of the San Francisco Police Code, 1972); a prohibition on the use of mirrored glass on the building (City Planning Commission Resolution No. 9212); protective measures against lead-based paint exposure (Chapter 36 of the San Francisco Building Code, Work Practices for Exterior Lead-Based Paint) and the requirement for street trees (Planning Code, Section 143). The project sponsor and construction contractors would also be required to observe state and federal OSHA safety requirements related to handling and disposal of other hazardous materials, such as asbestos and hazardous materials in water and soils.

MEASURES AGREED TO BY PROJECT SPONSOR

Mitigation measures included in the proposed project are listed below. Implementation of these measures would reduce impacts to less-than-significant levels.

Noise

1. It is likely that pile driving would be required for this project. The project sponsor shall require construction contractors to predrill holes to the maximum depth feasible based on soil conditions. The project sponsor shall also require that contractors schedule pile driving activity for times of the day that would be consistent with the San Francisco Noise Ordinance, to disturb the fewest people. Contractors shall be required to use construction equipment with state-of-the-art noise shielding and muffling devices.

Construction Air Quality

2. To reduce particulate emissions, the project sponsor shall require the contractor(s) to spray the site with water during demolition, excavation, and construction activities; spray unpaved construction areas with water at least twice per day; cover stockpiles of soil, sand, and other material; cover trucks hauling debris, soils, sand or other such material; and sweep surrounding streets during demolition, excavation, and construction at least once per day. Ordinance 175-91, passed by the Board of Supervisors on May 6, 1991, requires that non-potable water be used for dust control activities. Therefore, the project sponsor shall require that contractor(s) obtain reclaimed water from the Clean Water Program for this purpose. The project sponsor shall require the project contractor(s) to maintain and operate construction equipment so as to minimize exhaust emissions of particulates and other pollutants, by such means as a prohibition on idling motors when equipment is not in use or when trucks are waiting in queues, and implementation of specific maintenance programs to reduce emissions for equipment that would be in frequent use for much of the construction period.

Archaeological Resources

3. Based on a reasonable presumption that archaeological resources may be present within the project site, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed project on buried or submerged historical resources. The project sponsor shall retain the services of a qualified archaeological consultant having expertise in California prehistoric and urban historical archaeology. The archaeological consultant shall undertake an archaeological testing program as specified herein. In addition, the consultant shall be available to conduct an archaeological monitoring and/or data recovery program if required pursuant to this measure. The archaeological consultant's work shall be conducted in accordance with this measure at the direction of the Environmental Review Officer (ERO). All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the ERO for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO. Archaeological monitoring and/or data

recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less-than-significant level potential effects on a significant archaeological resource as defined in CEQA Guidelines Sect. 15064.5 (a)(c).

Archaeological Testing Program. The archaeological consultant shall prepare and submit to the ERO for review and approval an archaeological testing plan (ATP). The archaeological testing program shall be conducted in accordance with the approved ATP. The ATP shall identify the property types of the expected archaeological resource(s) that potentially could be adversely affected by the proposed project, the testing method to be used, and the locations recommended for testing. The purpose of the archaeological testing program will be to determine to the extent possible the presence or absence of archaeological resources and to identify and to evaluate whether any archaeological resource encountered on the site constitutes an historical resource under CEQA.

At the completion of the archaeological testing program, the archaeological consultant shall submit a written report of the findings to the ERO. If based on the archaeological testing program the archaeological consultant finds that significant archaeological resources may be present, the ERO in consultation with the archaeological consultant shall determine if additional measures are warranted. Additional measures that may be undertaken include additional archaeological testing, archaeological monitoring, and/or an archaeological data recovery program. If the ERO determines that a significant archaeological resource is present and that the resource could be adversely affected by the proposed project, at the discretion of the project sponsor either:

1. The proposed project shall be re-designed so as to avoid any adverse effect on the significant archaeological resource; or

2. A data recovery program shall be implemented, unless the ERO determines that the archaeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible.

Archaeological Monitoring Program. If the ERO in consultation with the archaeological consultant determines that an archaeological monitoring program shall be implemented the archaeological monitoring program shall minimally include the following provisions:

- The archaeological consultant, project sponsor, and ERO shall meet and consult on the scope of the AMP reasonably prior to any project-related soils disturbing activities commencing. The ERO in consultation with the archaeological consultant shall determine what project activities shall be archeologically monitored. In most cases, any soils- disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work,

driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archaeological monitoring because of the risk these activities pose to potential archaeological resources and to their depositional context;

- The archaeological consultant shall advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of the appropriate protocol in the event of apparent discovery of an archaeological resource;

- The archaeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archaeological consultant and the ERO until the ERO has, in consultation with project archaeological consultant, determined that project construction activities could have no effects on significant archaeological deposits;

- The archaeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis;

- If an intact archaeological deposit is encountered, all soils-disturbing activities in the vicinity of the deposit shall cease. The archaeological monitor shall be empowered to temporarily redirect demolition/excavation/pile driving/construction activities and equipment until the deposit is evaluated. If in the case of pile driving activity (foundation, shoring, etc.), the archaeological monitor has cause to believe that the pile driving activity may affect an archaeological resource, the pile driving activity shall be terminated until an appropriate evaluation of the resource has been made in consultation with the ERO. The archaeological consultant shall immediately notify the ERO of the encountered archaeological deposit. The archaeological consultant shall make a reasonable effort to assess the identity, integrity, and significance of the encountered archaeological deposit, and present the findings of this assessment to the ERO.

Whether or not significant archaeological resources are encountered, the archaeological consultant shall submit a written report of the findings of the monitoring program to the ERO.

Archaeological Data Recovery Program. The archaeological data recovery program shall be conducted in accord with an archaeological data recovery plan (ADRP). The archaeological consultant, project sponsor, and ERO shall meet and consult on the scope of the ADRP prior to preparation of a draft ADRP. The archaeological consultant shall submit a draft ADRP to the ERO. The ADRP shall identify how the proposed data recovery program will preserve the significant information the archaeological resource is expected to contain. That is, the ADRP will identify what scientific/historical research

questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practical.

The scope of the ADRP shall include the following elements:

- *Field Methods and Procedures.* Descriptions of proposed field strategies, procedures, and operations.
- *Cataloguing and Laboratory Analysis.* Description of selected cataloguing system and artifact analysis procedures.
- *Discard and Deaccession Policy.* Description of and rationale for field and post-field discard and deaccession policies.
- *Interpretive Program.* Consideration of an on-site/off-site public interpretive program during the course of the archaeological data recovery program.
- *Security Measures.* Recommended security measures to protect the archaeological resource from vandalism, looting, and non-intentionally damaging activities.
- *Final Report.* Description of proposed report format and distribution of results.
- *Curation.* Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.

Human Remains and Associated or Unassociated Funerary Objects. The treatment of human remains and of associated or unassociated funerary objects discovered during any soils disturbing activity shall comply with applicable State and Federal laws. This shall include immediate notification of the Coroner of the City and County of San Francisco and in the event of the Coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission (NAHC) who shall appoint a Most Likely Descendant (MLD) (Pub. Res. Code Sec. 5097.98). The archaeological consultant, project sponsor, and MLD shall make all reasonable efforts to develop an agreement for the treatment of, with appropriate dignity, human remains and associated or unassociated funerary objects (CEQA Guidelines. Sec. 15064.5(d)). The agreement should take into consideration the

appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects.

Final Archaeological Resources Report. The archaeological consultant shall submit a Draft Final Archaeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archaeological resource and describes the archaeological and historical research methods employed in the archaeological testing/monitoring/data recovery program(s) undertaken. Information that may put at risk any archaeological resource shall be provided in a separate removable insert within the final report.

Once approved by the ERO, copies of the FARR shall be distributed as follows: California Archaeological Site Survey Northwest Information Center (NWIC) shall receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Major Environmental Analysis division of the Planning Department shall receive three copies of the FARR along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest in or the high interpretive value of the resource, the ERO may require a different final report content, format, and distribution than that presented above.

As discussed by topic above, and with inclusion of these mitigation measures, the project itself would not have a significant project-specific or cumulative impact on the environment.

MITIGATION MEASURE THAT COULD BE REQUIRED AS CONDITION OF APPROVAL

Traffic generated by the project would not result in significant project-specific impacts and would not contribute significantly to cumulative traffic impacts. As a result of the substantial increase in traffic volumes anticipated to occur in the area east of Second Street by 2020 from cumulative growth in the City and the region, sixteen intersections would degrade from LOS C to LOS E or F during the weekday p.m. peak hour. Traffic generated by the proposed project alone would not contribute considerably to cumulative traffic conditions at these intersections. To help improve future traffic conditions at those intersections, however, the following mitigation measure could be required:

4. The project sponsor shall contribute to the Department of Parking and Traffic's new Integrated Transportation Management System (ITMS). This program is a citywide real-time electronic transportation management system that is planned to include installation

of various intelligent transportation system infrastructure components to improve traffic circulation in the City.

Implementation of the ITMS program is intended to improve overall traffic conditions and to reduce traffic congestion in the City, including the South of Market area in which the project is located. By improving overall traffic conditions and reducing traffic congestion, the ITMS would facilitate circulation in the project area. It cannot be said with certainty, however, that implementation of the ITMS program would be sufficient to reduce 2020 cumulative impacts to less-than-significant levels.

IMPROVEMENT MEASURES IDENTIFIED BY THIS REPORT

Improvement measures are actions or changes that would reduce effects of the project that were found through the environmental analysis to have less-than-significant impacts. Improvement measures identified in the EIR may be required by decision makers as conditions of project approval. The following improvement measures are identified in the EIR:

Wind

Although no significant wind impacts due to the project were found during the wind study analysis, the project would cause one new exceedance of the pedestrian comfort criterion and one new exceedance of the sitting comfort criterion. The wind analysis recommends the installation of street trees along the north side of the 400 block on Mission Street to reduce the 1 mph exceedance there. Implementation of this measure would be the responsibility of the Department of Public Works.

Parking

The shortfall of about 104 to 236 parking spaces is not considered a significant impact in the City, particularly in the downtown core where commuter parking is discouraged. The project site is well-served by transit, with local and regional transit services provided on Mission and Market Streets and at the Transbay Transit Terminal, a regional transit hub across Fremont Street. Sufficient parking is available in nearby off-site garages to accommodate the project's shortfall. Improvement measures could be implemented to reduce the parking demand. Identified improvement measures include one or more of the following: encourage office and retail

employees to use alternative means of travel; provide reduced rate or free transit passes to employees; provide on-site transit information, such as schedules, fare guides, and maps, and provide transit maps and directions for transit at the project's web site; and coordinate with City CarShare to promote the use of car-sharing by residents.

Traffic

The following improvement measure could further reduce non-significant project impacts on circulation. Project sponsor would request the Department of Parking and Traffic to install a flashing red signal across from the project driveway on Fremont Street (at project sponsor's expense), with appropriate signage, advising motorists exiting the driveway to yield to oncoming traffic, including buses exiting the Transbay loop.

V. SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

In accordance with Section 21067 of the California Environmental Quality Act (CEQA), and with Section 15126(b) of the state CEQA Guidelines, the purpose of this section is to identify impacts that could not be eliminated or reduced to an insignificant level by mitigation measures included as part of the proposed project, or by other mitigation measures that could be implemented, identified in Chapter IV, Mitigation Measures, pp. 134-141.

With implementation of the mitigation measures listed in Chapter IV, Mitigation Measures, the potentially significant impacts due to the project individually and cumulatively would be reduced to less-than-significant levels or eliminated. Therefore, there would be no significant unavoidable project-specific or cumulative impacts from the 301 Mission Street project.

This chapter is subject to final determination by the Planning Commission as part of the certification process for the EIR. The Final EIR will be revised, if necessary, to reflect the findings of the Commission. The project sponsor has agreed to implement the mitigation measures identified as Measures Agreed to by Project Sponsor in Chapter IV, in an agreement dated February 10, 2003.

VI. ALTERNATIVES TO THE PROPOSED PROJECT

This chapter identifies alternatives to the proposed project and discusses the environmental effects associated with the alternatives in comparison to the proposed project. San Francisco decision makers must consider approval of an alternative if that alternative would substantially lessen or avoid significant environmental impacts identified for the proposed project and that alternative is determined to be feasible. The determination of feasibility will be made by City decision makers.

The following alternatives are discussed and evaluated in this chapter: a No Project Alternative; an Alternative Requiring No Allowable Exceptions; an Alternative Requiring No Allowable Height Extension; an Alternative Mixed Use Development with More Office and Less Residential Space; and two alternatives that would accommodate future development of the proposed Transbay Terminal/Caltrain Downtown Extension, now under review. The two alternatives consist of an Alternative to Accommodate Transbay Terminal and Second-to-Main-Street Caltrain Extension Alignment; and an Alternative to Accommodate Transbay Terminal and Second-to-Mission-Street Caltrain Extension Alignment. See Table 7 for a comparison of the alternatives and the proposed project.

The project sponsor does not have control of other sites in San Francisco of sufficient size and in a location appropriate for development of the project as proposed. No alternative sites have been identified within the City where the project could be constructed that would meet most of the project sponsor's objectives and where the project's significant environmental impacts would be substantially lessened or avoided.

A. NO PROJECT

The California Environmental Quality Act (CEQA) and the State CEQA Guidelines require that a No Project Alternative be included in EIRs. One of the purposes of the No Project Alternative is to allow decision makers to compare the effects of the proposed project with the effects of not approving a project.

Table 7: Comparison of the Project and Alternatives B, C, D, and E[1]

	Project	Alternative B: No Exceptions to Planning Code	Alternative C: No Height Extension	Alternative D: Mixed Use with More Office	Alternative E.1: Caltrain Second-to-Main Alignment	Alternative E.2: Caltrain Second-to-Mission Alignment
HEIGHT (in feet):						
Tower	605	550	550	605	605	605
Atrium	43	NA	43	43	43	43
Office	125	103	125	165	125	209
NUMBER OF STORIES:						
Tower	58	54	54	58	58	58
Office	9	8	9	12	9	15
USES (gsf):						
Retail/restaurant	9,400	9,400	9,400	9,400	9,400	9,400
Hotel[2]	164,800	164,800	164,800	164,800	164,800	164,800
Hotel rooms	120	120	120	120	120	120
Office [2]	130,560	130,560	130,560	300,000	130,560	223,700
Residential[2]	551,000	551,000	500,000	347,400	551,000	457,860
Dwelling units	320	320	270	183	320	256
Parking [2]	61,138	0	53,730	46,750	48,420	19,400
TOTAL Gross Floor Area:[2]	907,498	846,360	849,090	858,950	894,780	865,760
Parking spaces	400	200	350	297	360	157
Residential	320	120	270	183	280	157
Commercial	80	80	80	114	80	0

(Continued)

[1] Alternative A, No Project, is not included in this table. It is discussed at the beginning of this Alternatives chapter and would essentially be a continuation of existing conditions. Under Alternative A, no new development would occur as a result of the 301 Mission Street project, but future development would not be precluded.

[2] Gross floor area attributable to the Floor Area Ratio (FAR) of the Planning Code.

Table 7 (Continued)

	Project	Alternative B: No Exceptions to Planning Code	Alternative C: No Height Extension	Alternative D: Mixed Use with More Office	Alternative E.1: Caltrain Second-to-Main Alignment	Alternative E.2: Caltrain Second-to-Mission Alignment
Open space[3]	19,210	19,210	19,210	22,710	19,210	20,300
FAR	18.0:1	16.8:1	16.8:1	17.0:1	17.7:1	17.1:1
RELATIONSHIP TO CODE:						
Bulk Exception	yes	no	yes	yes	yes	yes
Upper-tower Extension	yes	no	no	yes	yes	yes
TDR	yes	yes	yes	yes	yes	yes
CU for Hotel	yes	yes	yes	yes	yes	yes
CU for Parking	yes	no	yes	yes	yes	yes

Notes:

[3] Publicly accessible.

Source: Turnstone Consulting and San Francisco Planning Department.

DESCRIPTION

The No Project Alternative would retain the existing three buildings and the vacant lot on the site. No new mixed use development with hotel, residential, office, restaurant/retail or parking uses would occur on the site. The site would continue to be used for office and retail. This reflects the existing physical conditions on the project site that are described in the Setting discussions in Chapter III. This alternative would not preclude future proposals for development of the site, including the vacant lot in the northwest corner at 345 Mission Street.[1]

IMPACTS

If the No Project Alternative were implemented, increased population and impacts associated with the project would not occur. Environmental conditions at the site would continue to be as described in the Setting discussions in Chapter III. Land use, visual quality and urban design, shadow and wind conditions would not change. Because no project excavation or construction would occur, there would be no effect on archaeological resources, geology and soils, hydrology and dewatering, hazards, energy use, or noise.

Continued growth in the downtown and in the project vicinity would create future significant cumulative transportation and air quality impacts, and would contribute air emissions from future traffic growth. However, under the No Project Alternative, activity at the site would not contribute to these cumulative impacts, beyond existing contributions.

The No Project Alternative does not preclude development of the site in the future with a range of uses, or combination of uses, allowable as principal and/or permitted uses in the C-3-O District. Any specific detail about the characteristics of such a proposal would be speculative. Other development could be proposed for the whole site or the vacant lot.

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[1] The vacant portion of the site is part of "L-shaped" Lot 17 in Block 3719. This lot also includes 129 Fremont Street and 124 Beale Street.

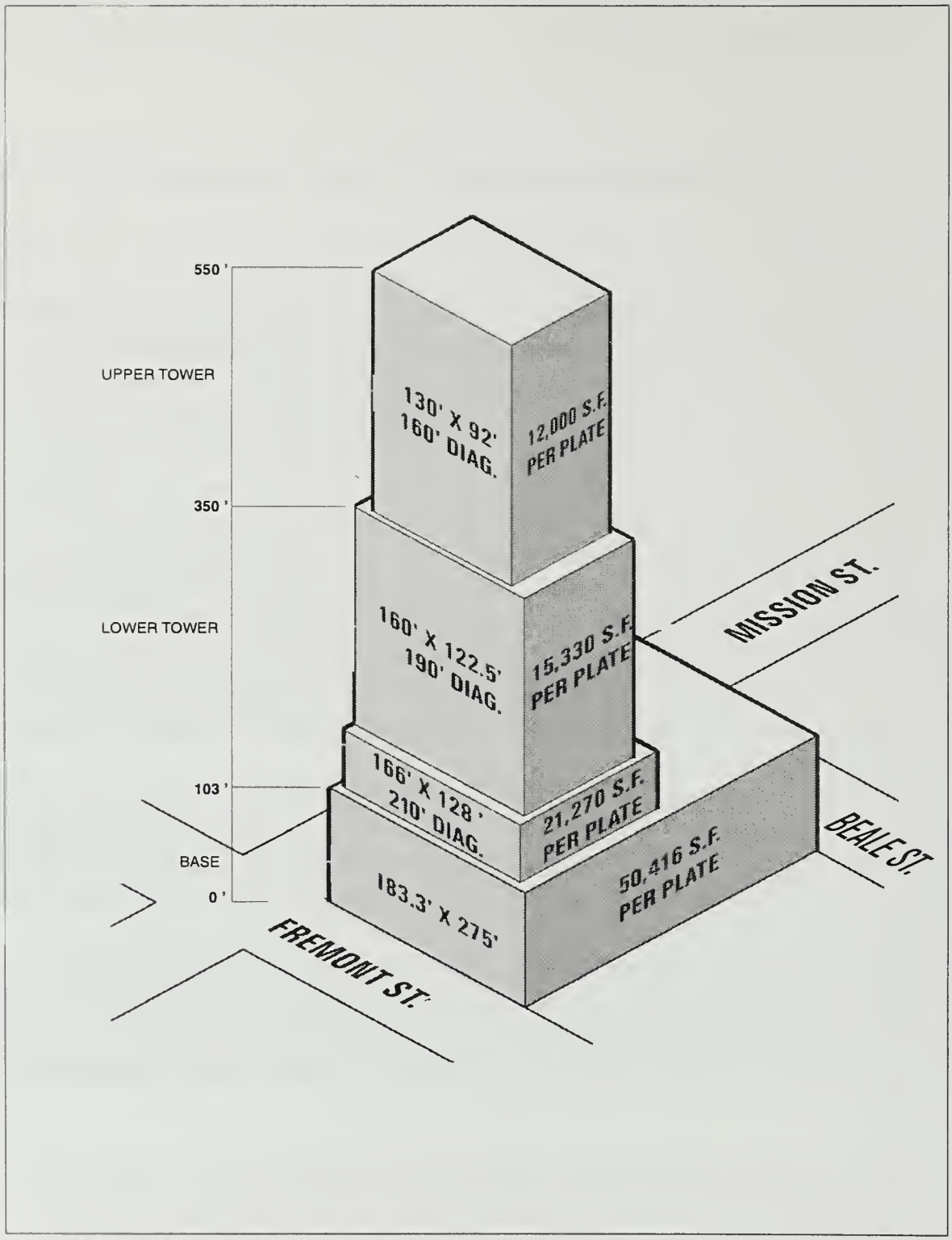
B. NO ALLOWABLE EXCEPTIONS TO THE PLANNING CODE

DESCRIPTION

Alternative B would not require the allowable exceptions to the Planning Code that would be needed for the project. The tower component of this alternative would be 550 feet tall and would conform to the applicable "S" bulk limits resulting in a tiered tower form that would decrease in bulk with increased height (see Figure 29: Alternative B, Schematic Massing Diagram). No upper-tower height extension or bulk exception would be requested. The tower form atop the western portion of the base (which allows more height under site zoning than the eastern portion) would be articulated into three volumes, each successively less bulky than the one below it. The tower would be more bulky at the base and more slender at the top compared to the project, and would have a three-part tower with a defined base, middle and top. No height extension would be needed because all of the floor area in the project program, including TDRs, could be accommodated in the building envelope. To remain within the 18:1 Floor Area Ratio (FAR), the base element would be lower than the allowable 103-foot base height and/or would cover a smaller portion of the site than the full site coverage allowable under the applicable height and bulk provisions.

Alternative B would contain the same mix of uses, in the same amounts, as the proposed project. As with the project, it would require a Conditional Use authorization for hotel use in the C-3-O District. The office uses would be incorporated within the base element. Pedestrian access to the building would be the same as the proposed project with a central, publicly accessible atrium entered from Mission Street, separate street entrances to each of the four restaurant or retail spaces located along Mission, Fremont and Beale Streets, a separate entrance to the office lobby on Mission Street or from the central atrium, a shared Mission Street entrance to the hotel and residential lobbies and another shared entrance from the porte cochere at the southwest corner of the site.

Vehicular circulation would function in substantially the same manner as the proposed project with a porte cochere, two-way drive, and freight loading in roughly the same locations as the proposed project. No Conditional Use authorization would be required for residential parking exceeding accessory amounts under Planning Code Section 204.5. The project could provide the allowable number of spaces under Section 204.5, which is 200. Of this, 120 would be dedicated to residential use (150 percent of the 80 spaces required) and the remaining 80 spaces would be



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SOURCE: Gary Edward Handel + Associates, Turnstone Consulting

301 MISSION STREET

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FIGURE 29: ALTERNATIVE B, SCHEMATIC MASSING DIAGRAM

for commercial use. This would be 200 fewer spaces than in the proposed project. As with the project, parking would be subsurface.

IMPACTS

Because the building would include the same mix of uses in the same amounts as the proposed project and would function in essentially the same manner in terms of pedestrian and vehicular circulation, its impacts with respect to land use, transportation, air quality, and population would be the same as those of the proposed project. Based on parking demand, it would result in a greater parking shortfall than the project. Alternative B would differ from the proposed project primarily with respect to visual quality and shadow effects. Effects on cultural resources, geology and soils, hydrology and dewatering, hazards, energy use, and noise would be the same as the project (see Appendix A: Initial Study).

At 550 feet tall Alternative B would be about 55 feet shorter than the proposed project and it would be bulkier than the proposed project at the lower tower levels and more slender at the top. This alternative's massing would vary; its stepped silhouette would be less vertical in emphasis than the proposed project tower because its vertical lines would be divided by three successive setbacks. This tiered form would be more consistent with the nearby 100 First Street building form than would the project. The topmost tier of Alternative B, from 350 feet in height to its termination at 550 feet, would be smaller than the proposed project at the same height (measuring eight feet less than the proposed project in maximum length, nine feet less in diagonal dimension and less by about 1,800 sq. ft. in average floor-plate size). This alternative would not include a separate office envelope on the eastern portion of this site, as office uses would be incorporated into the base.

Alternative B would create less shadow than the proposed project on sidewalks farther away from the project site, and more shadow on the sidewalks in proximity to the project site, due to the larger base component. The total length of shadow created by the tower would be reduced in proportion to the reduction in height under Alterative B. The public and publicly accessible open space shaded under proposed project conditions would be similarly shaded as with the project under Alternative B conditions.

Like the proposed project, Alternative B would not be expected to cause hazardous wind conditions and would likely cause ground-level wind speeds that are similar to those with the proposed project. The three setbacks of the tower in Alternative B would not be of sufficient dimension to vary ground-level wind conditions from those of the proposed project, and the base would be bulkier.

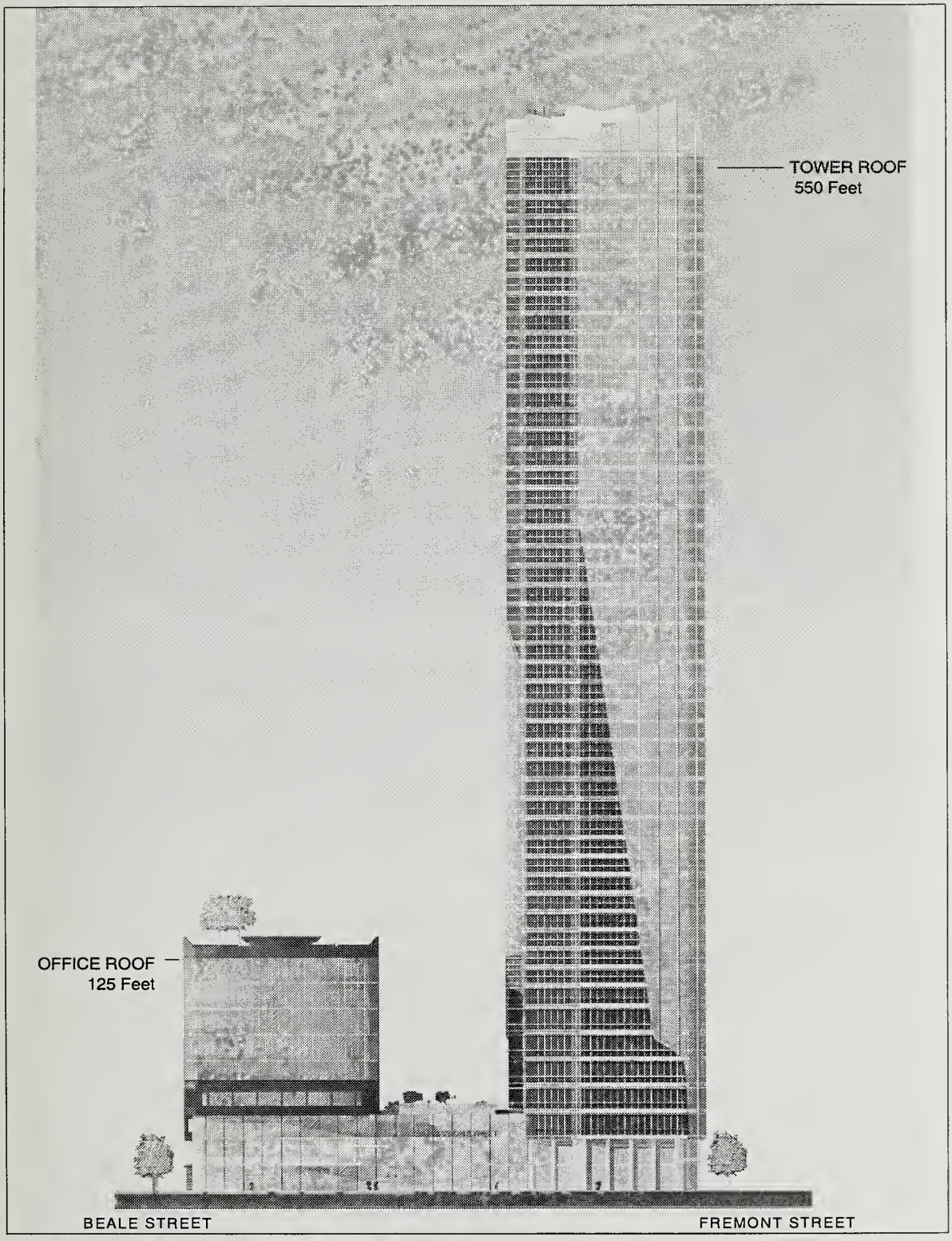
This alternative would provide 120 more parking spaces than required by Code. Compared to estimated demand, the parking shortfall would be about 355 to 445 spaces with this alternative, about 200 spaces more than the proposed project. Off-street parking occupancy in the study area would increase to about 91 percent, compared to 86 percent with the project. It could be difficult for drivers to find parking in the study area, which may result in drivers parking farther away from the project site or switching to other modes of travel. Significant secondary impacts to the transportation system would not be expected to result from this alternative's level of parking occupancy. Although there would be no significant secondary impacts, improvement measures are identified for the project that, if adopted, could reduce automobile trips and increase transit use to reduce parking demand generated by the alternative.

C. NO ALLOWABLE HEIGHT EXTENSION

DESCRIPTION

Alternative C would not have the allowable 10 percent upper-tower height extension under Planning Code Section 263.9 that is proposed for the project. It would have 54 floors (four fewer than the proposed project), and would be approximately 550 feet tall (55 feet shorter than the proposed project). It would have 270 residential units (50 fewer units than the proposed project), and 350 subsurface parking spaces (50 fewer than the proposed project). It would otherwise be identical to the proposed project with respect to its dimensions, design and program (see Figure 30: Alternative C, Mission Street Elevation). The Floor Area Ratio (FAR) would be 16.8:1 As with the project, the alternative would require a Conditional Use authorization for hotel use in the C-3-O District.

Alternative C would conform to the height limit with no allowable upper-tower height extension, but, since its upper-tower floor plate measurements would be identical to the proposed project, it would require the same exceptions from upper tower bulk limits on floor plate area, floor length and diagonal measurement as would the proposed project. As with the project, a Conditional Use



SOURCE: Gary Edward Handel + Associates, Turnstone Consulting

301 MISSION STREET

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FIGURE 30: ALTERNATIVE C, MISSION STREET ELEVATION

authorization would be required for accessory parking in excess of 150 percent of the 88 spaces required for the 270 residential units.

IMPACTS

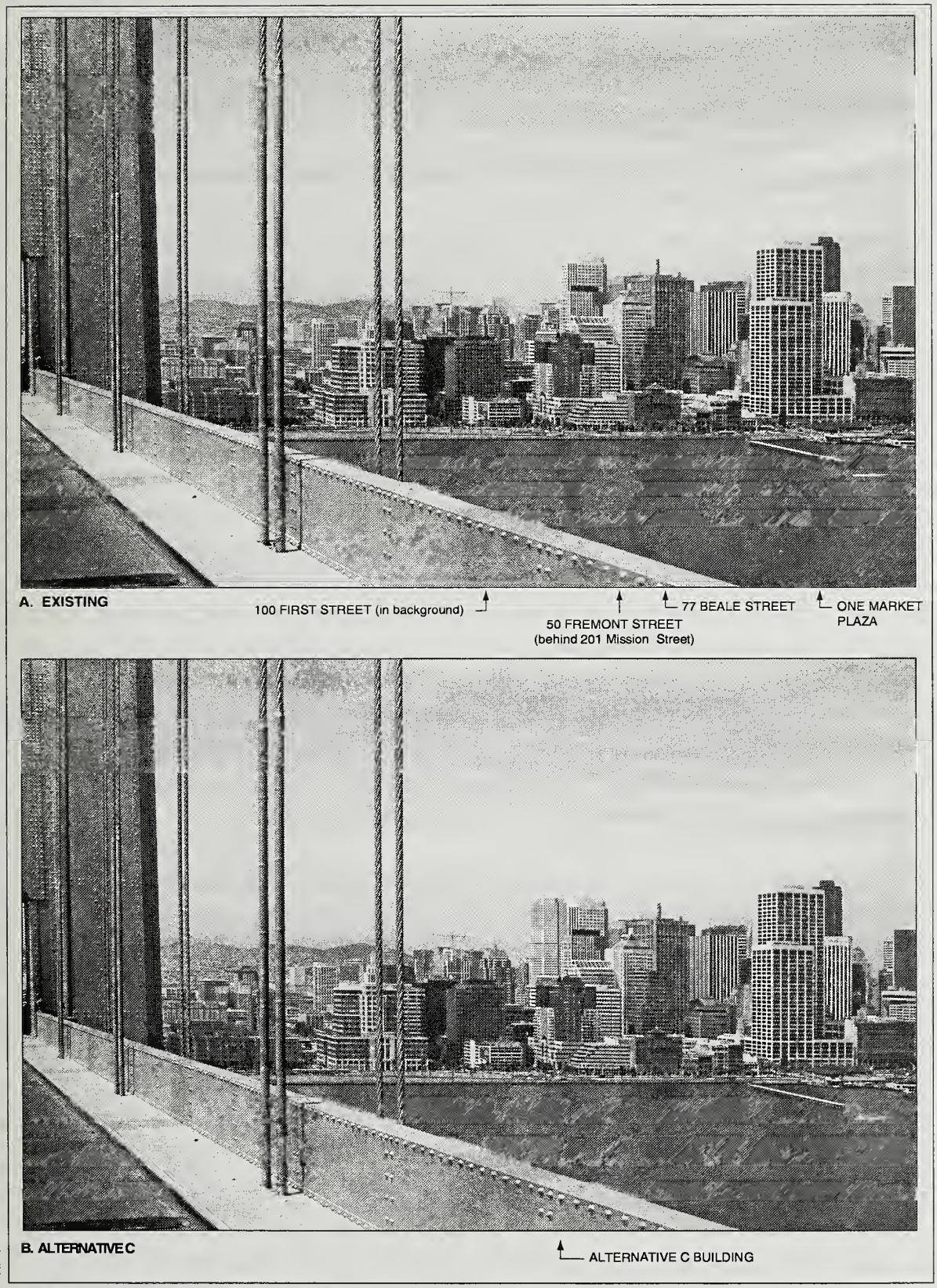
Alternative C would be a mixed use development similar to the proposed project except that it would have about 16 percent fewer residential units due to the elimination of four tower floors, and about 14 percent fewer parking spaces.

Alternative C would be similar in appearance to the proposed project. Its proportions would appear slender with a width to height ratio of about 1:3.3 (168 feet wide measured at its widest diagonal, by 550 feet tall). Its proportions would be somewhat less slender than those of the proposed project, which has a width to height ratio of 1:3.6. Although about 50 feet shorter than 50 Fremont Street, the top of the Alternative C tower would appear to closely align with the top of 50 Fremont Street when viewed from the Bay Bridge looking west, with the alternative being closer to the viewer (see Figure 31: Alternative C, View Looking West from the Bay Bridge).

Alternative C would create less shadow on some sidewalks. The total length of shadow created by the tower would be reduced in proportion to its reduction in height under Alterative C. The public and publicly accessible open space shaded under proposed project conditions would be similarly shaded as with the project under Alternative C conditions.

Alternative C conditions were tested in the wind tunnel (see Appendix B: Wind Tunnel Analysis). Based on that analysis, wind speeds would not be substantially greater or less than with the project due to the decreased tower height. As under existing conditions, there would be no exceedances of the pedestrian and sitting comfort criteria. The 1 mph exceedance of the pedestrian criterion that would occur with the project on Mission Street near the 50 Fremont Strect building would not occur with Alternative C (location 5, as shown in Figure 27, p. 89). Under the Alternative C Transbay cumulative scenario, there would be one ground-level pedestrian comfort criterion exceedance on the Fremont Street sidewalk at the project site (location 22) that would not occur under proposed project cumulative conditions.

Building circulation would function in the same manner as the proposed project in terms of pedestrian and vehicular access. Impacts with respect to transportation and air quality would be



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SOURCE: Square One Productions and Turnstone Consulting

FIGURE 31: ALTERNATIVE C, VIEW LOOKING WEST FROM THE BAY BRIDGE

similar to and somewhat less than the proposed project under this alternative. There would be slightly fewer p.m. peak hour vehicle trips with Alternative C, because there would be fewer residential units. The reduction would not be large enough to change the intersection levels of service or delays compared to those identified for the proposed project. As with the project, Alternative C would not cause any nearby intersections to degrade to unacceptable levels. Parking and loading demand would be slightly less than for the proposed project. As with the project, air emissions from traffic generated by Alternative C would not exceed BAAQMD significance thresholds.

Alternative C would provide 270 parking spaces for the residential units and 80 publicly accessible spaces for the commercial uses. This would be 262 more parking spaces than the Code requirement of 88 spaces, and 169 more than the number allowable for the residential use under the Code. The alternative would require a Conditional Use authorization for the additional parking spaces. Parking demand would be about 575 spaces, about 67 fewer than the demand for the proposed project. Compared to estimated demand, the parking shortfall would be about 154 to 225 spaces with this alternative, about 3 to 17 fewer than with the proposed project. Off-street parking occupancy in the study area would be about 86 percent, the same as the project. As with the project, the parking shortfall could be accommodated in off-street parking facilities in the project vicinity, and significant secondary impacts to the transportation system would not be expected to result from this alternative at this level of parking occupancy.

Effects of the alternative on population, cultural resources, geology and soils, hydrology and dewatering, hazards, energy use, and noise would be similar to the project (see Appendix A: Initial Study).

Alternative C would be the environmentally superior alternative due to its reduced program and tower height.

D. MIXED USE DEVELOPMENT WITH MORE OFFICE AND LESS RESIDENTIAL SPACE

DESCRIPTION

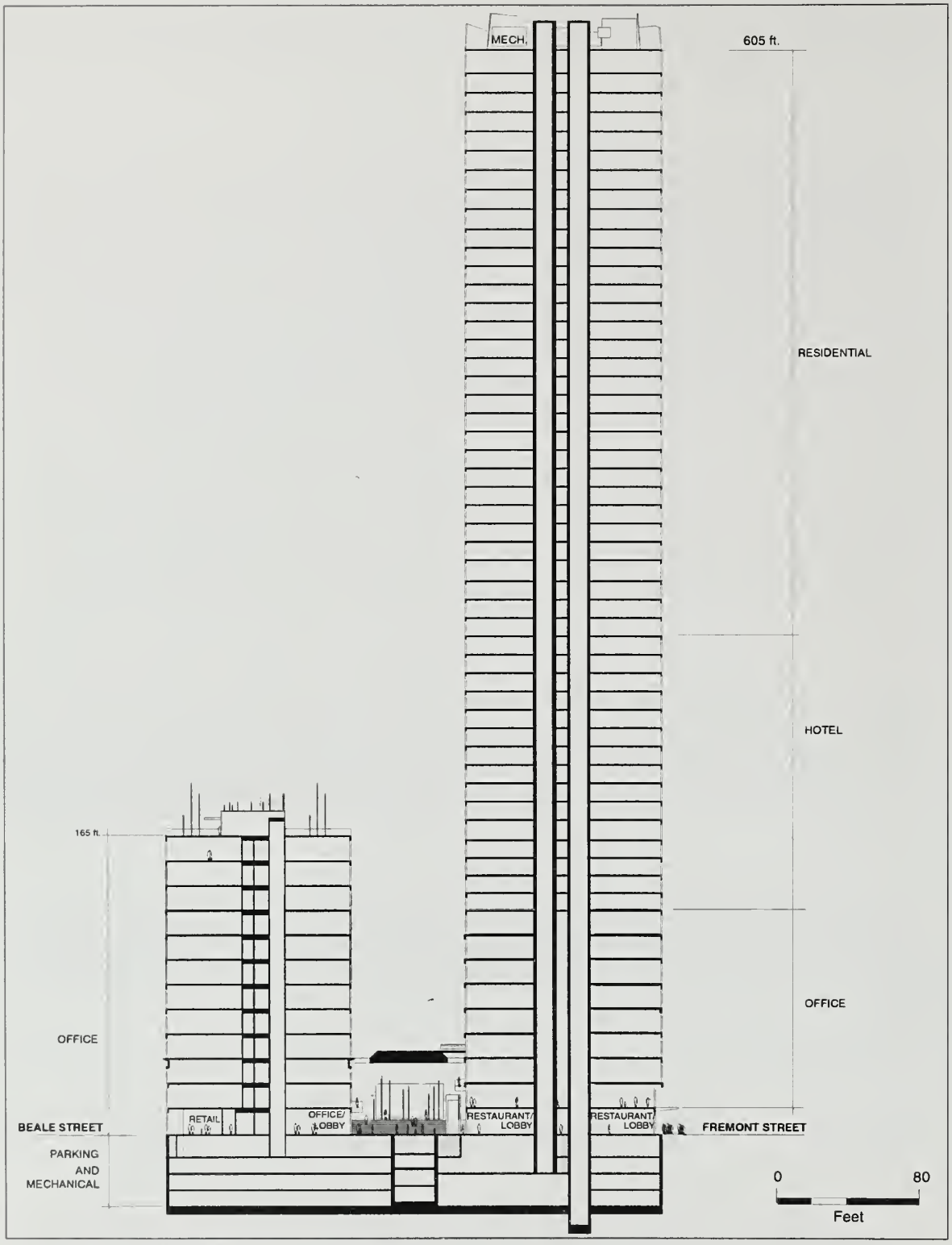
Alternative D would provide more office space, historically the predominant land use in the C-3-O District, than would the proposed project. The alternative would also be a mixed use

development with the same total gross floor area as the proposed project, but with a different allocation of uses (see Figure 32: Alternative D, Section Showing Location of Uses). There would be more office space (a total of about 300,000 gsf) with this alternative, about 170,000 gsf more than the proposed project. Due to the greater amount of office space, this alternative would require about 3,500 square feet more public open space (provided on the roof of the office component) than the proposed project. Unlike the project, this alternative would require authorization under Planning Code Sections 321-325 for office development. This alternative would have less residential space than the proposed project: about 183 residential units (occupying 347,400 gsf of space), about 137 fewer units than the proposed project (and about 203,600 gsf less than the proposed project). Alternative D would include the same amount of hotel, retail, and ancillary uses as the proposed project. As with the project, it would require a Conditional Use authorization for hotel use in the C-3-O District. The ground floor would function in the same manner as the proposed project, with a ground-floor plan that would be similar in layout.

The alternative would provide 297 parking spaces (103 fewer than the project). It would have 34 additional commercial parking spaces allowed as "accessory" per Planning Code Section 204.5 (7 percent of 170,000 square feet of additional office / 350 square feet per parking space) for a total of 114 commercial spaces, and would provide one parking space per residential unit, as proposed in the project.

Alternative D would include a twelve-story office building component, three stories more than the project.[2] The building envelope of the tower and atrium would be similar to the proposed project, requiring the same height and bulk exceptions for the tower as would the proposed project.

[2] Typical floor heights for the office use are 13 feet, 10 inches, while typical residential floor heights are about 11 feet 9 inches. Although the total gross square feet of floor area under Alternative D would be substantially the same as that of the project, the additional height of the office building under Alternative D is attributable to a larger proportion of floor area devoted to office use and a smaller proportion for residential use.



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SOURCE: Gary Edward Handel + Associates, Turnstone Consulting

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FIGURE 32: ALTERNATIVE D, SECTION SHOWING LOCATION OF USES

IMPACTS

Alternative D would have 130 percent more floor area devoted to office use than the proposed project and about 43 percent fewer residential units. This alternative's increased office space and reduced residential component would be more similar to the existing, predominant, land use in the downtown area and to adjacent office buildings to the east and north of the project site than would the project.

Because the exterior design of the Alternative D tower would be similar to that of the proposed project, except that the office element would be taller than the office element of the project, this alternative would result in similar visual and urban design effects.

Alternative D would create slightly more shadow on the sidewalks in the vicinity of the project site. The total length of shadow created by a taller office component would be increased in proportion to its increase in height under Alterative D, particularly along the north sidewalks in the 200 and 300 blocks of Mission Street. Public and publicly accessible open space shaded under proposed project conditions would be expected to be similarly shaded under Alternative D conditions.

Alternative D would likely cause ground-level wind speeds that are similar to those with the proposed project. The approximately 40-foot increase in height of the office component would not be expected to cause wind speeds that would be substantially greater or less than with the project.

The number of net new p.m. peak hour vehicle trips would be 170 with the proposed project and about 205 with Alternative D. This increase would result from more office space and less residential space, compared to the project. Although delays at local intersections would increase by up to one second per vehicle, levels of service would remain the same as those shown for the proposed project. Alternative D would not cause a significant traffic impact. This alternative would provide 297 parking spaces, or 251 more than required by the Planning Code and 114 more than the number allowable under Planning Code Section 204.5, compared to 400 spaces provided in the project. The estimated parking demand for Alternative D would be about 666 spaces, about 24 more than the demand for the proposed project. As with the project, a portion of the demand would be met by spaces supplied in the project parking garage; off-street parking occupancy in the study area would increase to about 90 percent, compared to 86 percent with the

project. It could be difficult for drivers to find parking in the study area, which may result in drivers parking further away from the project site or switching to other modes of travel. Significant secondary impacts to the transportation system would not be expected to result from this alternative's level of parking occupancy.

Loading demand would be for about six spaces during the peak loading hour and five spaces during the average loading hour, about one more than the proposed project. Six off-street loading spaces would be required under Planning Code Section 152.1, three for the office space, two for the residential units and one for the hotel. This is one more than would be required for the proposed project.

The increase in vehicle trips would not be sufficient to cause substantial changes in traffic-related air emissions. As with the proposed project, Alternative D would not cause significant air quality impacts. Other effects of the alternative would be the same as the project (see Appendix A: Initial Study for discussion by topic).

E. JOINT USE OF SITE WITH PROPOSED TRANSBAY TERMINAL AND CALTRAIN DOWNTOWN EXTENSION

INTRODUCTION

As discussed in Section III.A, Land Use and Zoning, pp. 50-60, the City and County of San Francisco, the Peninsula Corridor Joint Powers Board (JPB), and the Federal Transit Administration are evaluating a new multi-modal Transbay Terminal on the site of the present-day Transbay Terminal and extension of Caltrain commuter rail service from the Fourth and Townsend Streets terminus to a new underground terminus beneath the new Transbay Terminal. Two alignments are under consideration for the Caltrain Downtown Extension. Both alignments would use some of the 301 Mission project site. The Second-to-Main alignment contemplates six tracks and three platforms under the proposed Terminal along its east-west axis; it would encroach onto the project site along the length of the southern property line. The Second-to-Mission alignment would split at about Essex and Natoma Streets to allow two tracks with platforms to pass diagonally through the 301 Mission Street project site. The remaining four tracks and platforms would be under the proposed Terminal along its east-west axis. The Transbay Terminal/Caltrain Downtown Extension/Redevelopment Project is the subject of a Draft EIS/EIR, published in October 2002 that is currently being finalized. The EIS/EIR

analyzes the extension at a conceptual design level. The physical engineering concepts will be further refined and continue to progress after a preferred alignment is selected with completion of environmental review.

In order to explore the feasibility of joint use of the project site by the 301 Mission Street project and the Transbay Terminal / Caltrain Downtown Extension project, the Planning Department consulted with Caltrain engineers, Joint Powers Board staff, and the project sponsor and engineers. At the Planning Department's request, Caltrain engineers provided the project structural engineers with information about the land area on the 301 Mission Street site that conceptually would be required for each of the two alignments. The project engineers and architect then explored the alternative project designs that could accommodate each alignment.

The Caltrain engineers established that about five feet along the southerly border of the project site would be required below grade for the Second-to-Main alignment. Alternative E-1 to Accommodate Transbay Terminal and Second-to-Main-Street Caltrain Extension Alignment was developed on the basis of this information and is analyzed below.

After additional meetings and review, the Caltrain engineers produced drawings which refined the conceptual Second-to-Mission parameters creating smaller column-free zones and assuming a lower tunnel floor (64 feet). Using this information, the project structural engineers developed a design that would support the building superstructure on a below-grade 10-foot-thick concrete mat reinforced with structural steel beams that would act as a transfer girder. This design is analyzed as Alternative E-2 to Accommodate the Transbay Terminal and Second-to-Mission-Street Caltrain Extension Alignment, p. 161.[3]

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[3] The project descriptions for Alternatives E-1 and E-2 are based in part on the engineering and architectural documents submitted by Tay C. Via, Esq., Coblentz, Patch, Duffy & Bass, LLP, in a letter to Carol Roos, San Francisco Planning Department, dated December 18, 2002 (Planning Department File No. 2001.0792E). The following documents were submitted with the letter: Niaz A. Nazir, Ph.D., SE, Desimone Consulting Engineers, P.L.L.C., letter titled "Evaluation of Caltrain Alternates for the Downtown Terminal Expansion, 301 Mission Street, San Francisco, CA," dated September 10, 2002; Glenn G. Rescalvo, AIA, Gary Edward Handel + Associates, letter dated September 19, 2002; Niaz A. Nazir, Ph.D., S.E., Desimone Consulting Engineers, P.L.L.C., letter titled "Evaluation of Caltrain Alternate 2 for the Downtown Terminal Expansion, 301 Mission Street, San Francisco, California," dated December 4, 2002; and Glenn G. Rescalvo, AIA, Gary Edward Handel + Associates, letter titled "Evaluation of Caltrain Alternative 2 for the Downtown Terminal Expansion, 301 Mission Street," dated December 6, 2002.

ALTERNATIVE E-1 TO ACCOMMODATE TRANSBAY TERMINAL AND SECOND-TO-MAIN-STREET CALTRAIN EXTENSION ALIGNMENT

Description

The proposed Caltrain Downtown Extension would extend Caltrain from its present terminus at Fourth and Townsend Streets to an underground station beneath the proposed new Transbay Terminal. Two alternative Caltrain alignments are under consideration. The Second-to-Main alignment contemplates six tracks and three platforms under the proposed Terminal along its east-west axis.[4]

Preliminary plans for the Second-to-Main Caltrain alignment indicate that the outside of the proposed tunnel wall would need to encroach over the southern property line of the 301 Mission Street project site. Alternative E-1 would involve acquisition for the Transbay Terminal project of a small strip along the southerly portion of the project site to accommodate the proposed Transbay Terminal access tunnel. The preliminary plans from Caltrain indicate that its construction would be about 45 feet deep. Alternative E-1 would require replacement of temporary piles with construction of a new 18- to 24-inch-thick foundation wall. To avoid transfer of lateral pressure and accommodate the anticipated load, the Caltrain tunnel would need to be isolated from the Alternative E-1 structure. The project structural engineers estimate that this could be accomplished with an approximately 8- to 12-inch filled isolation joint placed between the two walls. A load-bearing wall of Alternative E would cantilever over the newly positioned foundation wall. This would require installation of a continuous corbel ("cap beam") along the top of the wall. The 301 Mission Street structure could thus be built in advance of construction of the Caltrain tunnel.

According to the project architect, accommodation of the Second-to-Main Caltrain extension alignment would result in a total loss of about 5 feet along the southern 275-foot length of the project site,[5] or approximately 4,000 gsf over four subsurface levels. This would require the

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[4] From the east end of the proposed Terminal, the tracks would continue as "tail tracks" curving south along Main Street.

[5] The foundation wall of Alternative E would need to be thicker than that of the proposed project and isolated from the Caltrain tunnel wall, resulting in the additional loss of subsurface floor area.

project to eliminate up to 40 parking spaces, 500 sq. ft. of storage, and 500 sq. ft. of mechanical space. Above grade, Alternative E-1 would be identical to the proposed project.

Impacts

The effects of Alternative E-1 on land use, shadow, wind, urban design, air quality and growth inducement and on topics discussed in the Initial Study (see Appendix A) would be the same as those of the proposed project.

Assuming the 40 eliminated parking spaces would be taken from the residential parking supply of 320 spaces, the estimated midday parking shortfall with respect to demand would increase from 151-236 to 191-276 spaces. The alternative would, however, provide 280 more parking spaces than the 80 spaces required by the Planning Code, 120 more than the number of spaces allowed without Conditional Use authorization under the Code. The shortfall could be accommodated in off-street parking facilities, as with the proposed project. All other transportation effects would be the same as those discussed for the proposed project.

The project engineers estimate that this alternative would result in increased costs for the project, in addition to the loss of site area and related below-grade program space.[6]

ALTERNATIVE E-2 TO ACCOMMODATE TRANSBAY TERMINAL AND SECOND-TO-MISSION-STREET CALTRAIN EXTENSION ALIGNMENT

Description

The Second-to-Mission Caltrain Extension would follow a different alignment in passing under the proposed new Transbay Terminal. Rather than running entirely parallel to the long axis of the proposed Terminal as with the Second to Main alignment, the Second to Mission alignment would split at approximately Essex and Natoma Streets to the southwest of the 301 Mission site before entering the basement of the proposed Terminal with two tracks and platforms veering in a northerly direction and passing diagonally through the 301 Mission project site in an approximate 90-foot-wide tunnel. After passing through the project site, the tunnel would continue to the east

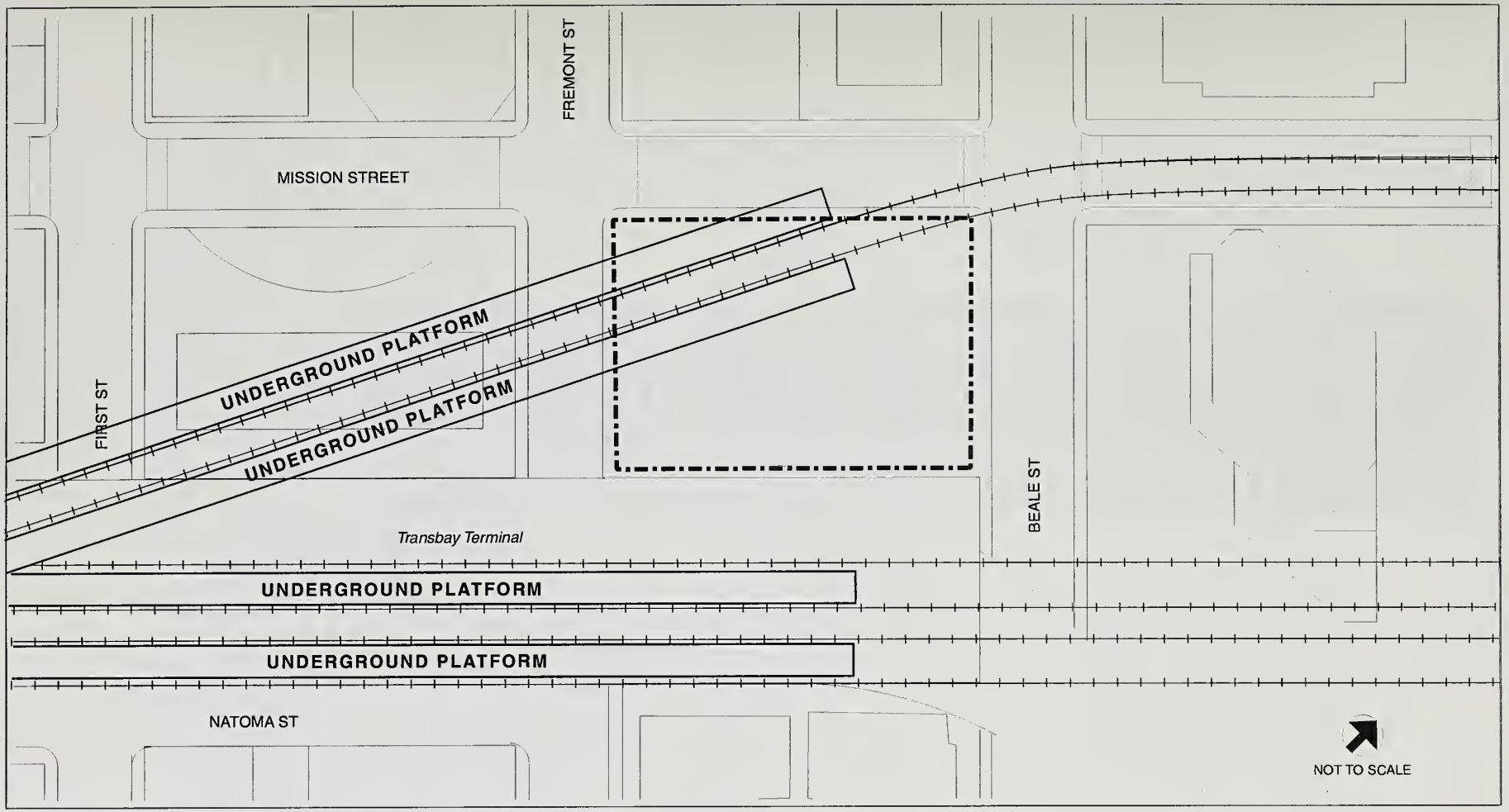
[6] See Footnote 3.

following the Mission Street right-of-way, albeit underground (see Figure 33: Alternative E-2, Second-to-Mission Caltrain Extension Alignment). For Alternative E-2, the Caltrain tunnel is assumed to be deeper than in Alternative E-1 as it crosses the project site, with the floor of the tunnel at 64 feet below grade and the top of the tunnel at 18 feet below grade. Along with the train tracks and platforms there would also be underground pedestrian access to the platforms and station area under the proposed new Transbay Terminal. Pedestrian access would likely involve a series of escalators and stairs due to the greater tunnel depth.

With Alternative E-2, it is assumed that the underground portion of the project site that would be needed for the rail alignment and pedestrian access would be acquired for the Transbay Terminal project, and 301 Mission would be developed on the remaining developable portions of the site. There would have to be substantial revisions to the below-ground facilities of the project with increased structural support for the office tower and changes to the foundation piles to avoid conflict with the train tracks and platforms. The residential tower would also have to be substantially revised from the proposed project.

Parking would be substantially reduced (approximately 60 percent) under this alternative, with the space remaining underground being able to accommodate 157 spaces, to be dedicated to the residential use. Loading facilities would be changed from below ground to an above-ground location and other support and mechanical functions would need to be located elsewhere, such as the lower above-grade levels of the residential tower within the project envelope. This would lead to changes in the design of the tower and the necessity of an above-ground connection between the office and the residential tower for building services that would be visible from atrium space. (See Figure 34: Alternative E-2, Section Showing Location of Uses.) The porte cochere and driveway planned to run from Fremont to Beale Street along the southernmost portion of the site would not be constructed with Alternative E-2 and these functions would be moved to Beale Street.

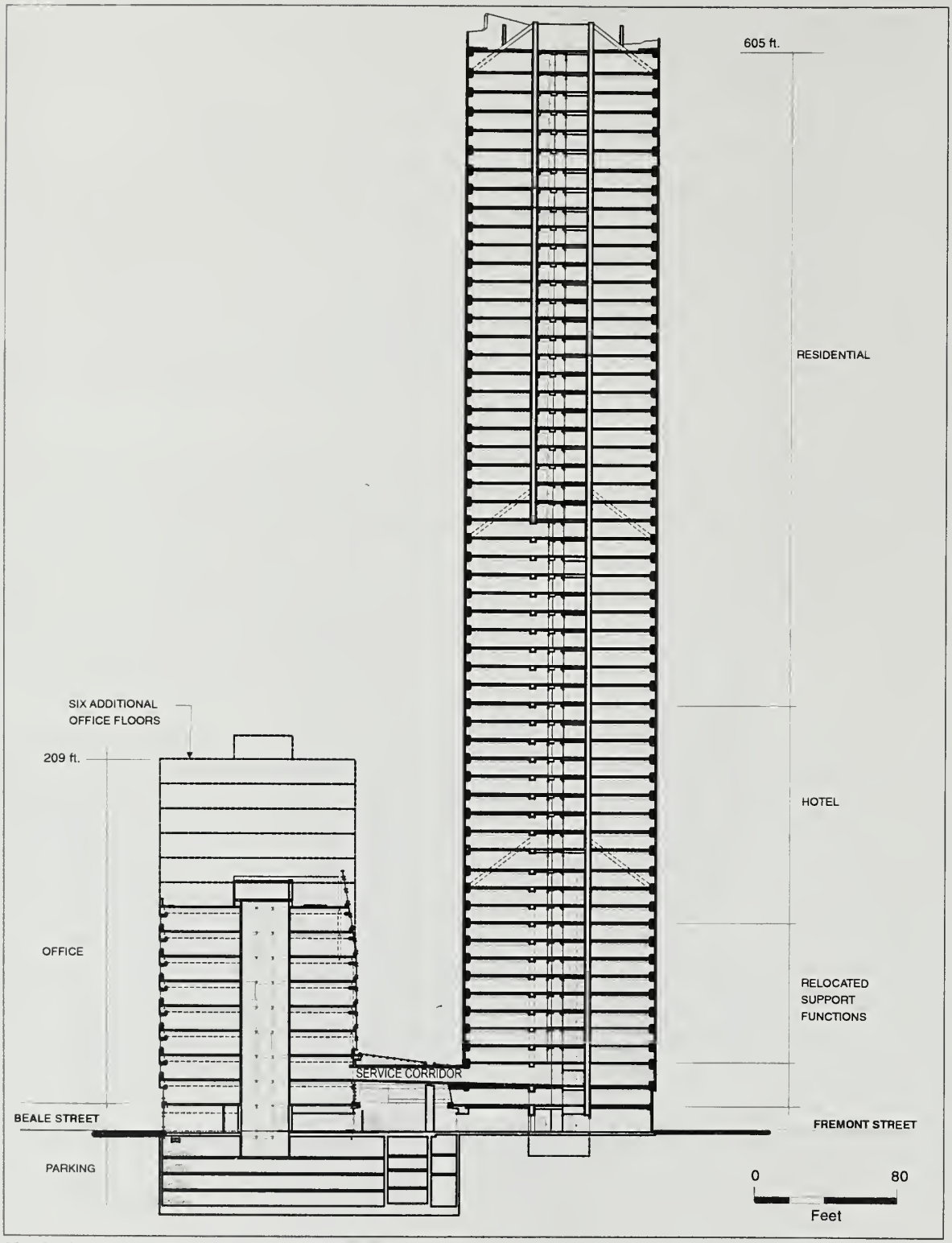
Because of loss of below-ground space and the changes necessary, the project office component would be increased to 15 floors or 209 feet tall, with the addition of six floors and 84 additional feet in height. The addition of building service and mechanical elements to the above-ground portions of the residential tower, with this alternative, would result in fewer residential units (256 units compared to 320 units with the project) and more office space (about 233,700 gsf compared to 130,560 gsf with the project). The residential space displaced by service and mechanical space would not be replaced in the office structure. Under this alternative, the sponsor would choose



SOURCE: Caltrain and Turnstone Consulting

PROJECT SITE CALTRAIN TRACKS

FIGURE 33: ALTERNATIVE E-2, SECOND-TO-MISSION CALTRAIN EXTENSION ALIGNMENT



EIR/1.24.03

SOURCE: Gary Edward Handel + Associates, Turnstone Consulting

FIGURE 34: ALTERNATIVE E-2,
SECTION SHOWING LOCATION OF USES

to add more office space to the office component, rather than introducing residential use elements to the office component. Mixing the uses would create issues with design and operational efficiency (for example, elevator and service core sizing, separation of lobby spaces and mechanical systems, and changes to security and staffing). This alternative would then require authorization under Planning Code Sections 321-325 for office development. Hotel and retail space with this alternative would be approximately the same as with the proposed project. Like the project, the alternative would require a Conditional Use authorization for hotel use in the C-3-O District. As noted above, parking would be reduced to 157 spaces from the 400 spaces proposed by the project.

Impacts

Alternative E-2 would have about 79 percent more floor area devoted to office use than the proposed project and about 20 percent fewer residential units. This alternative's increased office space and reduced residential component would be somewhat more similar to the existing predominate land use character in the area and to adjacent office buildings to the east and north of the project site than would the proposed project. The effect of the alternative on topics discussed in the Initial Study (see Appendix A) would be similar to or less than the project.

According to the project architects, because of the extent of changes to the exterior design of all components of Alternative E-2, necessary to accommodate this Caltrain alignment, the office tower, residential tower and atrium, the resulting building's expression to and connection to the street and the visual continuity would be disrupted and would result in a project that would be less aesthetically pleasing from an urban design viewpoint. The additional office floors would be a change in the scale and transparency of the proposed project atrium and outdoor space. From within the atrium, views toward the glass skylight roof would be partly obstructed by a solid element where a new service corridor connecting the office and hotel structures would cross the space.

As the office component in Alternative E-2 would be about 84 feet taller, it would be expected to create proportionally more shadow on the sidewalks in the vicinity of the project site. This effect would be most noticeable along the north sidewalks on the 200 and 300 blocks of Mission Street. The public and publicly accessible open space shaded under the proposed project conditions would be expected to be similarly shaded under Alternative E-2 conditions.

Alternative E-2 would likely cause ground wind speeds that would be similar to those with the proposed project. Wind speeds would not be expected to substantially increase or decrease due to the approximately 84-foot increase in height of the office component.

The number of vehicle trips with Alternative E-2 would be slightly less, about 18 trips difference projected during the p.m. peak, as the increase in office trips would be offset by the decrease in residential trips. A number this small would normally be within day-to day traffic fluctuations and would not change any of the intersection levels of service (LOS). Thus, the LOS would be expected to remain the same as those shown for the proposed project and Alternative E-2 would not cause a significant traffic impact. Moving the passenger loading and unloading activities to Beale Street would increase the potential for conflicts with traffic on Beale Street. There would also be some increased potential for conflicts with transit operations when the proposed Transbay Terminal is completed.

The changes in the residential and office square footages would cause a slight decrease in parking demand; parking demand would decrease by about 30 spaces. This alternative would provide 157 spaces, 93 more spaces than required by the Planning Code, and 61 more than the number allowed for the residential units as accessory use, and would require Conditional Use authorization. The estimated parking shortfall with respect to demand would be about 449 to 517 spaces, about 275 to 292 more than with the proposed project. Off-street parking occupancy in the study area would increase to about 94 percent. It could be difficult for drivers to find parking in the study area, which may result in drivers parking farther away from the project site or switching to other modes of travel. Significant secondary impacts would not be expected to result from this level of parking occupancy. Although there would be no secondary impacts, improvement measures are identified for the project that, if adopted, could reduce automobile trips and increase transit use to reduce parking demand generated by the alternative. The changes in the residential and office square footages would also increase loading demand by approximately one truck trip during the peak hour, but would not change the requirement for five loading spaces.

The very slight decrease in vehicle trips would mean that the traffic-related air emissions would remain substantially the same. As with the proposed project, Alternative E-2 would not cause significant air quality impacts.

The project engineers estimate that this alternative would result in increased costs for the project, in addition to the loss of below-grade program space.[7]

The analysis for this alternative assumes that the existing conceptual plans for the Second to Mission Alignment of the Transbay Terminal/Caltrain Extension, if selected as the project alignment, can be developed to construction drawing level in a timely manner. This would allow the refinement and definition of the points of interconnection between the two projects so that the areas necessary for the Transbay/Caltrain project can be constructed in conjunction with the 301 Mission Street project if the 301 Mission Street project were to precede the Transbay/Caltrain project. Close continuous coordination between the two projects would be required.

ALTERNATIVES CONSIDERED AND REJECTED

The process for developing the two alternatives to accommodate the proposed new Transbay Terminal and extension of Caltrain described above as Alternatives E-1 and E-2 was an iterative one between the 301 Mission Project Team and the Planning Department and Caltrain engineers. Various design options for alternatives were proposed but subsequently withdrawn from further consideration because of their inability to satisfy criteria for feasibility and acceptable environmental effects.

The engineering performed for the Transbay Terminal/Caltrain Downtown Extension/ Redevelopment Project Draft EIS/EIR established the conceptual designs and parameters for Caltrain as needed to complete that environmental document; therefore, a number of interim interpretations for compatible alternatives were developed. With no final engineering available on the actual location of specific portions of the proposed facilities or columns, the project engineers prepared a number of potential alternatives for the project that would not involve subsurface construction or columns in the entire right-of-way for the Caltrain underground alignment. The original alternatives were designed in accordance with the Transbay/Caltrain conceptual design as set out in the Draft EIS/EIR for the replacement of the Transbay Terminal.

[7] See Footnote 3.

One of the proposed but rejected designs provided a clearance envelope for the eventual construction of the Caltrain tunnel, by supporting the entire 301 Mission Street building on a deep concrete transfer girder or mat constructed partially above grade at the top of the future tunnel roof and pedestrian mezzanine. The mat would be about 30 feet thick and would have appeared as a blank concrete wall at street level. This structural system would have supported a building of sufficient size to accommodate all of the project's development program albeit with reduced parking. Another design considered was for a building accommodating about one-half of the project's development program. That alternative would have required a 15-foot-thick mat over the entire site that, as with the alternative above, would have appeared as a blank wall at street level. In view of the unacceptable urban design impacts, both these potential alternatives were rejected as unsatisfactory and infeasible.

A greatly reduced development program built on less than one-half the site, leaving the portion of the site where Caltrain would be underground vacant, was also considered. This potential alternative was rejected because of the under-utilization of a site adjacent to a major transit hub.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Besides the No Project Alternative, Alternative C, No Allowable Height Extension, would be the environmentally superior alternative due to its reduced development program and tower height.

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Nearby Property Owners

Property owners and occupants in the project vicinity, approximately 123 addresses, were sent Notices of Availability of the DRAFT EIR. A complete copy of this distribution list is available within the docket in the Planning Department at 1660 Mission Street.

APPENDIX A

NOTICE OF PREPARATION/INITIAL STUDY EIR REQUIREMENT

PLANNING DEPARTMENT

City and County of San Francisco 1660 Mission Street, Suite 500 San Francisco, CA 94103-2414

(415) 558-6378 PLANNING COMMISSION FAX: 558-6409 ADMINISTRATION FAX: 558-6426 CURRENT PLANNING/ZONING FAX: 558-6409 LONG RANGE PLANNING FAX: 558-6426

May 11, 2002

TO: Responsible Agencies, Trustee Agencies, and Interested Parties
FROM: Paul Maltzer, Environmental Review Officer

RE: Notice of Preparation of a Draft Environmental Impact Report

The City and County of San Francisco Planning Department is the Lead Agency and will prepare an Environmental Impact Report for the following project:

2001.0792E: 301 Mission Street Project - The project would demolish three existing, two- to six-story buildings, totaling about 173,650 gross square feet (gsf) and build a 58-story, 605-foot-tall high-rise mixed use development of approximately 1,068,400 gsf. The project would contain about 132,600 gsf of office space, 10,000 gsf of retail and restaurant space, a 6,000-gsf atrium, a 136-unit extended-stay hotel (approximately 198,200 gsf), 271 residential units (approximately 514,800 gsf); about 390 underground parking spaces (approximately 172,127 gsf, including circulation); and about 34,673 gsf of mechanical space. The site is on the south side of Mission Street between Fremont and Beale Streets, on Assessor's Block 3719, Lots 1 and 17. The proposed project configuration would be a nine-story, 125-foot-tall office building on the east side of the site that would be joined to a 58-story, 605-foot-tall tower on the west by a three-story central atrium. Access to the atrium would be from Mission Street, with a pedestrian path to outdoor terraces on the south side of the site. Separate street access to retail spaces would be along Mission and Fremont Streets. Access to the offices would be from a separate entrance on Mission Street or from the atrium. Access to the residential and hotel uses would be from shared entrances on Mission Street and a port-cochere on the south side of the project. There would be three off-street loading docks at ground level near the southeast corner of the site. Access to these would be at Fremont and Beale Streets and off a new two-way drive-through that would run the length of the site on the south.

This Notice of Preparation of a Draft Environmental Impact Report (EIR) and Notice that an EIR is Determined to be Required for the above-referenced project are being sent to you because you have expressed an interest in the proposed project, or because you have been identified by the Planning Department as potentially having an interest in the project. Notice of publication of these documents will be printed in a newspaper of general circulation on the date of these notices. As stated in these Notices, the Planning Department has determined that pursuant to the California Environmental Quality Act (CEQA) an EIR must be prepared prior to any final decision regarding the project.

We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency may need to use the EIR when considering a permit or other approval for this project.

Written comments on the scope of the EIR will be accepted until the close of business on June 10, 2002. Written comments should be sent to: Paul Maltzer, Environmental Review Officer, San Francisco Planning Department, 1660 Mission Street, Ste. 500, San Francisco, CA 94103. Please include the name of a contact person in your agency. Thank you.

Paul Maltzer
Environmental Review Officer

May 10, 2002
Date

PLANNING DEPARTMENT

City and County of San Francisco 1660 Mission Street, Suite 500 San Francisco, CA 94103-2414

(415) 558-6378 PLANNING COMMISSION FAX: 558-6409 ADMINISTRATION FAX: 558-6426 CURRENT PLANNING/ZONING FAX: 558-6409 LONG RANGE PLANNING FAX: 558-6426

NOTICE THAT AN ENVIRONMENTAL IMPACT REPORT (EIR) IS DETERMINED TO BE REQUIRED

Date of this Notice: May 11, 2002

Lead Agency: Planning Department, City and County of San Francisco
1660 Mission Street - 5th Floor, San Francisco, CA 94103-2414

Agency Contact Person: Carol Roos **Telephone**: (415) 558-5981

Project Title: 2001.0792E - 301 Mission Street Project
Project Sponsor: Mission Street Development Partners, LLC
Project Contact Person: Mark Farrar, (415) 274-9150

Project Addresses: 301 Mission Street, 345 Mission Street, 124 Beale Street, and 129 Fremont Street.
Assessor's Block(s) and Lot(s): 3719/1and 17
City and County: San Francisco

Project Description: The project proposes to demolish three existing two- to six-story structures, totaling about 173,650 gross square feet (gsf) and to build a 58-story, 605-foot-tall high-rise mixed use development of approximately 1,068,400 gsf. The building would contain about 132,600 gsf of office space, 10,000 gsf of retail and restaurant space, a 6,000-gsf atrium, a 136-unit extended-stay hotel (approximately 198,200 gsf), 271 residential units (approximately 514,800 gsf); about 390 underground parking spaces (approximately 172,127 gsf, including vehicle circulation); and about 34,673 gsf of mechanical space. The site is on the south side of Mission Street between Fremont and Beale Streets, on Assessor's Block 3719, Lots 1 and 17. The proposed building would include a nine-story, 125-foot-tall office building on the east side of the site that would be joined to a 58-story, 605-foot-tall tower on the west by a three-story central atrium.

THIS PROJECT MAY HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT AND AN ENVIRONMENTAL IMPACT REPORT IS REQUIRED. This determination is based upon the criteria of the Guidelines of the State Secretary for Resources, Section 15063 (Initial Study), 15064 (Determining Significant Effect), and 15065 (Mandatory Findings of Significance), and the following reasons, as documented in the Environmental Evaluation (Initial Study) for the project, which is attached.

Paul Maltzer
Environmental Review Officer
Planning Department

Mixed Use Development, 301 Mission Street
INITIAL STUDY
2001.0792E

PROJECT DESCRIPTION

The project proposes to demolish three existing two- to six-story structures, totaling about 173,650 gross square feet (gsf) and to build a 58-story, 605-foot-tall high-rise mixed use development of approximately 1,068,400 gsf. The building would contain about 132,600 gsf of office space, 10,000 gsf of retail and restaurant space, a 6,000-gsf atrium, a 198,200 gsf, 136-unit extended-stay hotel[1] (referred to as "hotel" herein), about 163 condominium and 108 rental residential units (approximately 514,800 gsf); about 390 underground parking spaces (approximately 150,000 gsf),and about 22,127 gsf for vehicle circulation; and about 34,673 gsf of mechanical space.

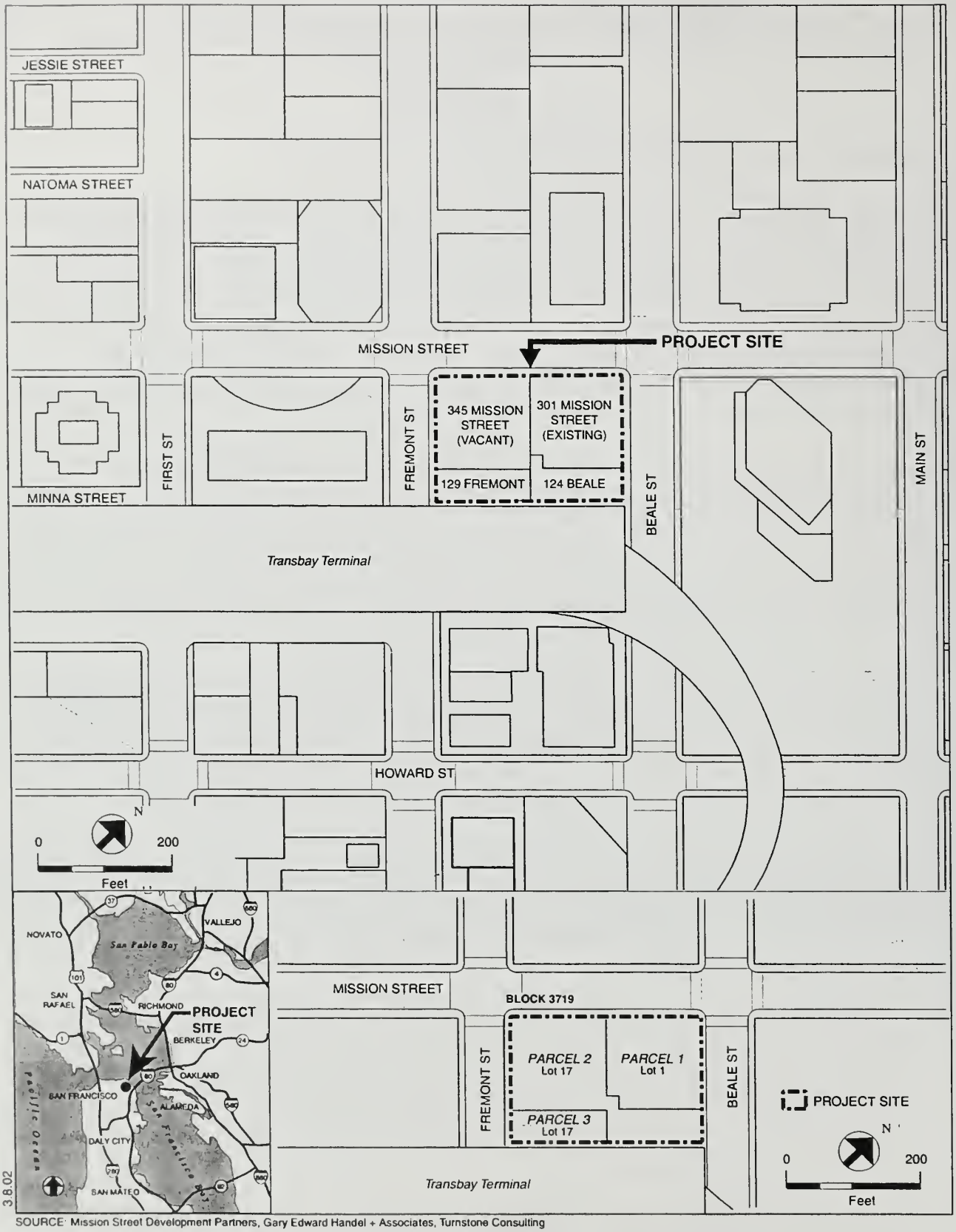
The site is on the south side of Mission Street between Fremont and Beale Streets, on Assessor's Block 3719, Lots 1 and 17, as shown in Figure 1, Project Location. It comprises the northern portion of the block fronting Fremont, Mission, and Beale Streets. The project site is in San Francisco's downtown core, which includes the expanded Financial District south of Market. The site is also within the proposed Transbay Redevelopment Project Area. The project site is about four blocks west of San Francisco Bay, three blocks east of Yerba Buena Center Redevelopment Area, and one block south of Market Street.

Immediately west of the project site, on the south side of Mission Street between First and Fremont Streets, is the San Francisco Transbay Terminal Plaza. Immediately east of the site across Beale Street, occupying the entire Block 3718, is the 201 Mission Street high-rise office building. A six- to seven-foot-wide pedestrian walkway is adjacent to the project site on the south; to the south of the walkway is part of the Transbay Terminal and bus ramps.

The project site is occupied by a six-story office building over ground-floor retail uses and one basement level at 301 Mission; a six-story office building above one basement level at 124 Beale Street; and a two-story industrial building used for offices at 129 Fremont Street. The lot at 345 Mission Street has been vacant since the previous building, damaged in the 1989 Loma Prieta earthquake, was demolished.

Existing office space on the project site totals approximately 140,000 gsf and existing retail space totals about 20,000 gsf. The project would decrease office space on the site by about 7,400 gsf and would decrease retail use on the project site by approximately 10,200 gsf. The proposed residential, hotel (about 713,000 gsf) and parking uses (about 390 spaces) would be new to the project site. Total net change in square footage for the site would be an addition of

[1] An extended-stay hotel is a hotel use providing accommodations for an undefined period of time and with additional amenities. Extended-stay hotels have cooking facilities in each unit and anticipated stays of a period of weeks rather than days.



SOURCE: Mission Street Development Partners, Gary Edward Handel + Associates, Turnstone Consulting

2001.0792E: 301 MISSION STREET

FIGURE 1: PROJECT LOCATION

894,750 gsf.[2] If the 345 Mission Street building (about 170,150 gsf[3]) were considered, the net change would be about 724,600 gsf.

Regarding zoning, the site is in the C-3-O (Downtown Office) Use District; the western portion is in a 550-S Height and Bulk district and the eastern portion is in a 400-S Height and Bulk district. In the C-3-O District a base floor area ratio (FAR) OF 9:1, and a maximum FAR of 18:1 are allowable, subject to height and building bulk limitations, with the use of transferable development rights (TDR). The total gross square footage of the project attributable to the FAR calculations is approximately 895,600 gsf,[4] or 17.8:1 FAR which is more than the base FAR and less than the allowable 18:1 gross floor area of 907,499 gsf.[5] The project would include TDRs.

The existing buildings on the site would be demolished for the project. New construction would include a nine-story, 125-foot-tall office building on the east side of the site that would be joined to a 58-story, 605-foot-tall tower on the west by a three-story central atrium (see Figure 2, Ground Floor Plan; and Figure 3, Mission Street Elevation). Proposed uses include retail space on the ground floor; office space on the second to the ninth floors of the eastern building; and on the western portion of the site, there would be a 136-unit extended-stay hotel occupying the second to the seventeenth floors above the ground-floor restaurant and retail space; and about 163 condominium and 108 rental residential units occupying the eighteenth to the fifty-eighth floors. The hotel would include a lounge and fitness center for the use of hotel occupants on the second and third levels, respectively.[6]

The central atrium would be accessed from Mission Street, and would serve as a pedestrian passage to landscaped outdoor terraces on the south side of the site. The atrium and terraces would be publicly accessible. Separate street entrances to retail spaces would be located along Mission and Fremont Streets. The entrance to the office spaces would be from a separate entrance on Mission Street or from the central atrium. Entrance to the residential and hotel uses would be from a shared entrance on Mission Street and a shared entrance from a port-cochere on the south side of the building.

Approximately 390 parking spaces on three subsurface levels would be accessed from Fremont Street at the southwest corner of the site; the ramp entrance leading to subsurface parking would be located centrally on the south side of the building. Three off-street loading docks at the ground level and two van spaces would be located near the southeast corner of the site. Access to the loading docks would be through the southwest corner of the site from Fremont Street

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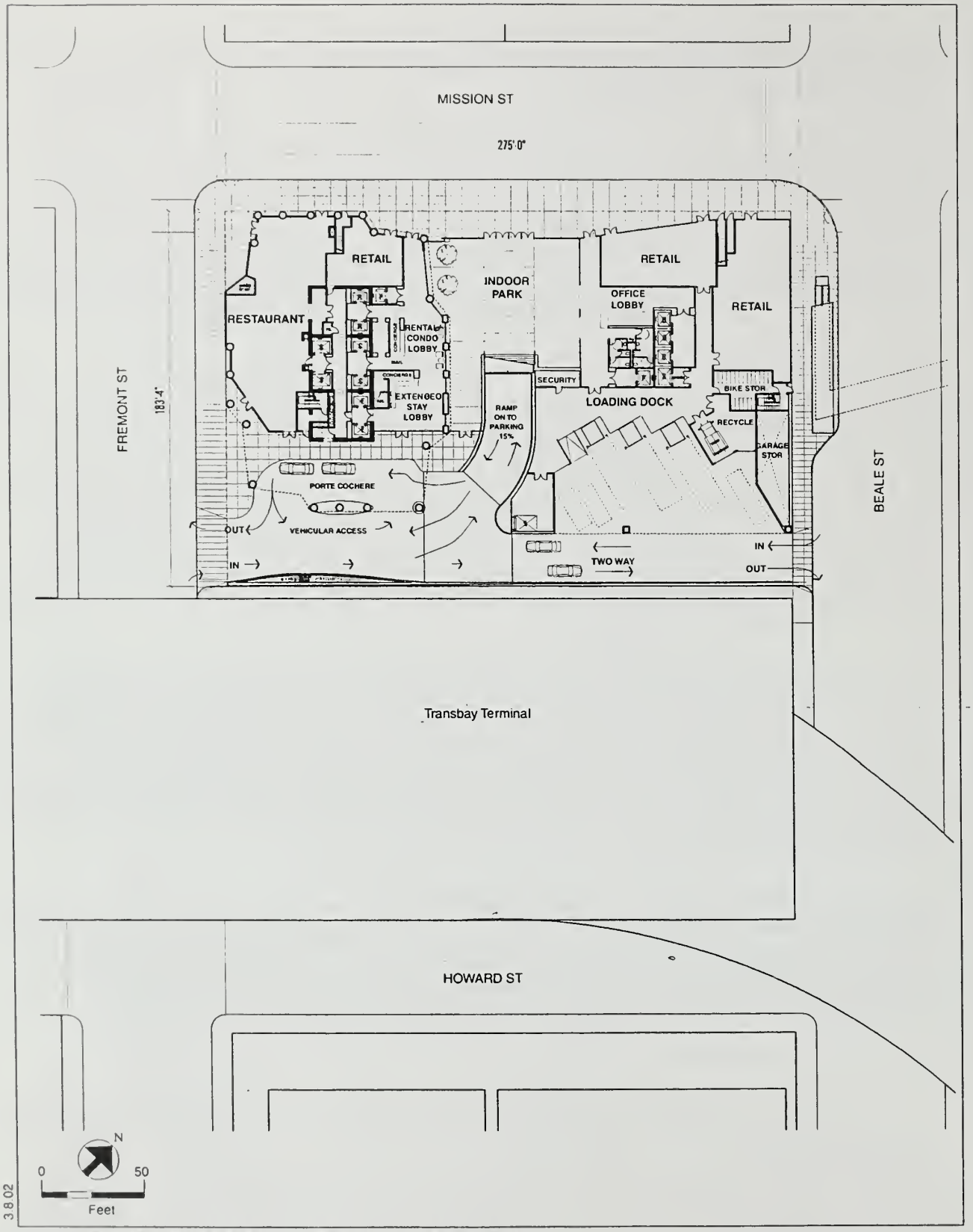
[2] The total existing gross square footage (173,650 gsf) includes about 13,650 gsf of basement storage space as well as office and retail spaces (about 160,000 gsf). Therefore net change in square footage would be 1,068,400 - 173,650 = 894,750 gsf.

[3] The former 345 Mission Street building occupied a land area of approximately 18,906 sq.ft. and was nine stories tall. It contained approximately 170,150 gsf of space.

[4] 172,800 gsf is excluded from the FAR calculation, under Planning Code Section 102.9(b). This amount includes the following: required and accessory parking and incidental driveways and maneuvering areas; mechanical equipment; ground floor-retail; and public open space.

[5] The allowable gross floor area for the project equals the lot area (50,416.6 sq.ft.) times 18, which is 907,499 gsf, when rounded to the nearest square foot.

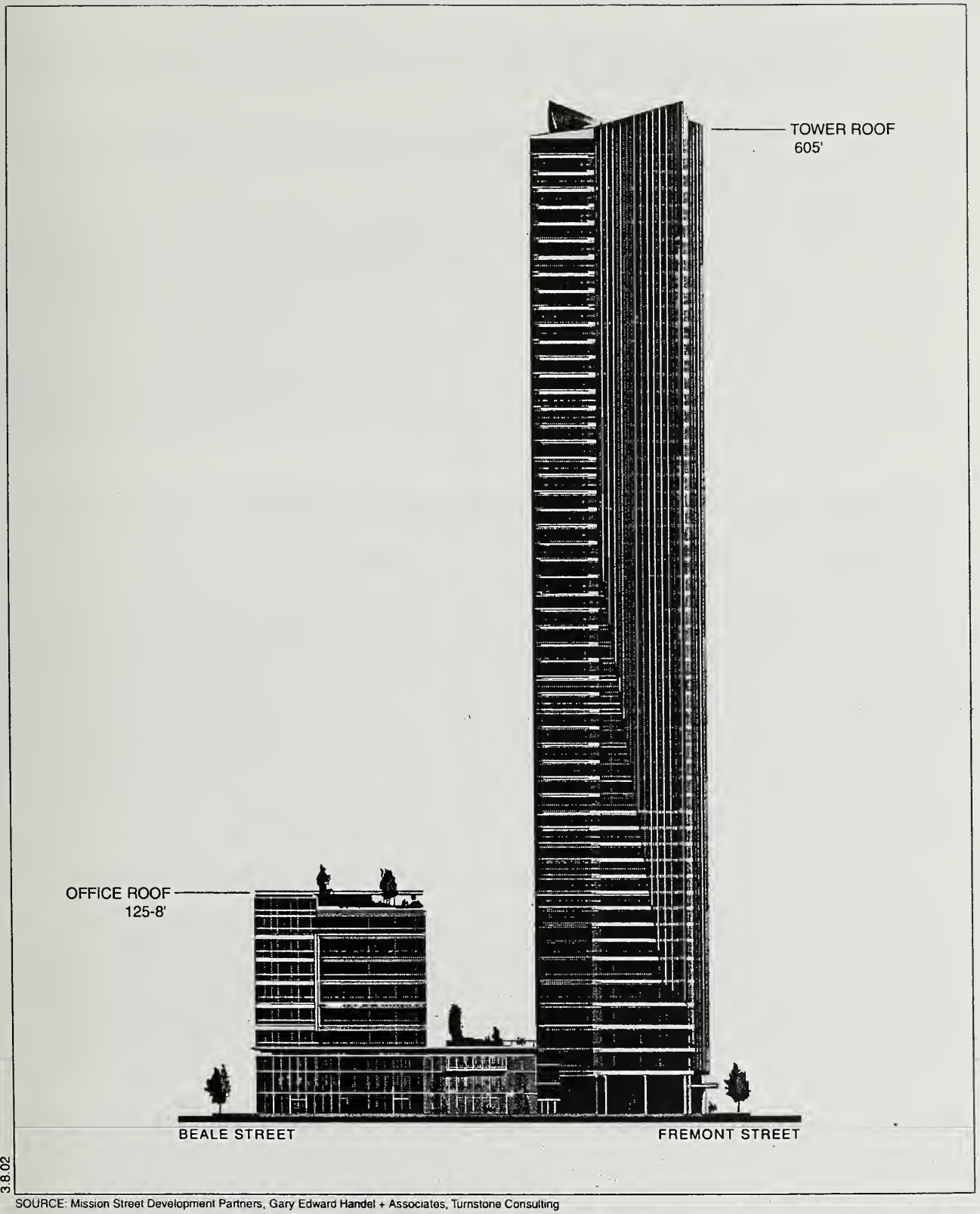
[6] The 198,200 gsf of hotel space, listed on Page 1, would include the lounge and fitness areas.



SOURCE Mission Street Development Partners, Gary Edward Handel + Associates, Turnstone Consulting

2001.0792E: 301 MISSION STREET

FIGURE 2: GROUND FLOOR PLAN



3.8.02

SOURCE: Mission Street Development Partners, Gary Edward Handel + Associates, Turnstone Consulting

2001.0792E: 301 MISSION STREET

FIGURE 3: MISSION STREET ELEVATION

(immediately south of the port cochere) and off the two-way drive-through that would run the length of the site along the south side.

The project would require the merger of existing lots and subdivision into residential and commercial portions; approval by the Board of Supervisors were the midblock pedestrian crosswalk across Fremont Street requested to be eliminated; potential office space authorization under Planning Code, Section 322, dependent upon whether formerly existing office space at 345 Mission Street is included in calculation of net new office space[7]; Conditional Use authorization for hotel use in a C-3 district under Planning Code Section 216; Conditional Use authorization for a parking garage under Planning Code Section 158 (for the portion of proposed parking in excess of accessory amounts under Planning Code Section 204.5, and the portion in excess of required parking under Planning Code Section 151); and review under Planning Code Sections 309 for exceptions under Section 272 from the upper tower bulk limits of Planning Code Section 270, and Section 263.9, from the height limits of Planning Code Section 250, for an additional 10% of height (an allowable upper tower extension).

II. SUMMARY OF POTENTIAL ENVIRONMENTAL EFFECTS

A. EFFECTS FOUND TO BE POTENTIALLY SIGNIFICANT

This Initial Study examines the 301 Mission Street project to identify potential effects on the environment. On the basis of this study, project-specific effects that have been determined to be potentially significant include transportation, air quality, and wind. These issues will be analyzed in the Environmental Impact Report (EIR). The EIR will also provide additional discussion of land use, visual quality/urban design, and shadow for informational purposes, although these topics are determined in this Initial Study to be less than significant impacts.

B. EFFECTS FOUND NOT TO BE POTENTIALLY SIGNIFICANT

The following effects of the 301 Mission Street project have been determined to be either insignificant or to be mitigated through measures included in the project: land use; visual quality/urban design; population and housing; noise; construction air quality; shadow; utilities/public services; biology; geology/topography; water; energy/natural resources; hazards; and cultural resources. These issues are discussed below and require no further environmental analysis in the EIR, except as noted, where they will be discussed for informational purposes.

[7] Project sponsor has requested an interpretation by the Zoning Administrator.

III. ENVIRONMENTAL EVALUATION CHECKLIST AND DISCUSSION

A. COMPATIBILITY WITH EXISTING ZONING AND PLANS

	Not Applicable	Discussed
1. Discuss any variances, special authorizations, or changes proposed to the City Planning Code or Zoning Map, if applicable.	__	X
2. Discuss any conflicts with any adopted environmental plans and goals of the City or Region, if applicable.	X	X

The project site is located within the boundaries of the Downtown Plan, an Area Plan of the *San Francisco General Plan*. The Downtown Plan is the policy document that guides growth and development in San Francisco's downtown area. Centered on Market Street, the plan covers an area roughly bounded by Van Ness Avenue to the west, The Embarcadero to the east, Folsom Street to the south, and the northern edge of the Financial District to the north. The plan contains objectives and policies that address the following: provision of space for commerce, housing and open space; preservation of the past; urban form; and movement to, from and within the downtown area (transportation). The Downtown Plan was intended to manage growth in this area, including maintaining a compact downtown core and directing growth to areas with developable space and easy transit accessibility. The Downtown Plan limits growth in the traditional downtown, centered in the Financial District, by adjusted height limits and FARs (floor area ratios). The Downtown Plan identifies specific South of Market areas, which include the proposed project site, for high-rise development, including space for office, retail and hotel uses, as well as for residential uses in downtown commercial developments.

The San Francisco Planning Code, including the City's Zoning Maps, implements the *San Francisco General Plan*, and governs permitted uses, densities, and configuration of buildings within the City. Permits to construct new buildings (or to alter or demolish existing ones) may not be issued unless (1) the proposed project conforms to the Code, (2) an allowable exception is granted pursuant to provisions of the Code, or (3) amendments to the Code are included as part of the project.

The project site (Assessor's Block 3719, Lots 1 and 17) is within the C-3-O (Downtown Office) district, which permits commercial and residential uses and has a base floor area ratio (FAR) of 9:1.[8] The eastern portion of the site, that would contain the podium structure, is in a 400-S height and bulk district, and the western portion of the site, to contain the tower structure, is in a 550-S height and bulk district. In 400-S and 500-S height and bulk districts, buildings are permitted at heights up to 400 and 550 feet, respectively. The "S" bulk district establishes limits

[8] See Planning Code Section 124.

on building bulk at specific heights.[9] There are no limitations of length or diagonal dimensions applicable to the base of a building, which is defined as the lowest portion of the building extending vertically to a streetwall height of up to 1.25 times the width of the widest abutting street or 50 feet, whichever is more. Bulk controls for a lower tower, which is defined as the span between the building base and 160 feet, are a maximum length of 160 feet, a maximum floor size of 20,000 sq.ft. and a maximum diagonal dimension of 190 feet. Bulk controls for an upper tower, which is defined as the span between 160 and 550 feet, are a maximum length of 130 feet, a maximum average floor size of 12,000 sq.ft, a maximum floor size for any floor of 17,000 sq.ft. and a maximum average diagonal measure of 160 feet. In "S" districts, additional height up to 10% of the allowable height shown on the Zoning Map may be allowed as an extension of the upper tower, provided that the volume as extended is reduced by a certain percentage (as shown in Panning Code Section 270(d), Chart B). The C-3-O district permits a base floor area ratio (FAR) of 9:1; a maximum FAR of 18:1 is allowable, subject to height and building bulk limitations, with the use of TDRs. The project would use an FAR of 18:1 and would include TDRs.

The project would require review under Planning Code Section 309(a), Permit Review in C-3 Districts: Exceptions, for allowable exceptions under Section 272, Bulk Limits: Special Exceptions in C-3 Districts from the upper tower bulk limits of Section 270, Bulk Limits: Measurement, and Section 263.9, Height Limits: Special Exceptions for Upper Tower Extensions in S Districts. The project sponsor is requesting these exceptions for diagonal dimension, length, and floor plate sizes above 350 feet in height; and for additional height for the upper tower up to 10% of the allowable height of 550 feet (for a total height of about 605 feet).

The project proposes a total of 390 parking spaces, including 122 spaces for the residential units and 268 spaces for the hotel, office, and retail uses. The project site is located in a C-3 District in which long-term commuter parking for commercial uses is discouraged. As stated in Planning Code Section 161(c), Exemptions from Off-Street Parking, Freight Loading and Service Vehicle Requirements, parking is not required for commercial uses in the C-3 districts and one parking space is required for every four dwelling units. The proposed project would therefore be required to provide 68 off-street parking spaces. Per Planning Code Section 204.5 Parking and Loading as Accessory Uses, the project would provide accessory parking associated with the residential parking equivalent to 150% of the required parking provision, or 102 spaces. The project would also provide accessory parking for the non-residential component of seven percent of the remaining 400,000 gsf, or 80 spaces.[10] Planning Code Section 157, Conditional Use Applications for Parking Exceeding Accessory Amounts: Additional Criteria, requires Conditional Use authorization for parking that is in addition to the amount permitted as accessory.

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[9] See Planning Code Section 270(d).

[10] Seven percent of 400,000 gsf is 28,000 gsf. This area would accommodate about 80 vehicles with an average of 350 sq.ft. per car and no use of aisle space for parking, or about 130 vehicles with valet parking and assuming about 215 sq.ft. per vehicle.

The project would also require the following approvals:

- Merger of existing parcels, and residential and commercial subdivision;
- Approval by the Board of Supervisors if the midblock pedestrian crosswalk across Fremont Street were to be eliminated; and
- Conditional Use authorization for hotel use in a C-3 district under Planning Code Section 216(b), Other Housing.

The project sponsor has asked for a determination by the Zoning Administrator regarding pre-existing office space demolished after the Loma Prieta earthquake. If pre-existing space in 345 Mission Street is not considered in calculation of net new office space, the project would require approval under Planning Code Section 322, Procedure for Administration of Office Development Limit.

The 301 Mission Street project requires review by the Planning Commission and the Department of Public Works.

Applicable Area Plans and Elements of the *General Plan* include the Downtown Plan, Urban Design Element, Residence, Transportation, and Commerce and Industry Elements. If the project, on balance, were to have substantial conflicts with General Plan objectives and policies, it could not be approved. In general, potential conflicts with the *General Plan* are considered by decision makers (normally the Planning Commission) independent of the environmental review process, as part of the decision to approve, modify or disapprove a proposed project. Any potential conflict not identified here could be considered in that context, and would not alter the physical environmental effects of the proposed project. The relationship of the proposed project to objectives and policies of the *General Plan* will be discussed in the EIR.

In November 4, 1986, the voters of San Francisco passed Proposition M, the Accountable Planning Initiative, which established eight Priority Planning Policies. These policies, contained in Section 101.1 of the City Planning Code, are: preservation and enhancement of neighborhood-serving retail uses; protection of neighborhood character; preservation and enhancement of affordable housing; discouragement of commuter automobiles; protection of industrial and service land uses from commercial offices development and enhancement of resident employment and business ownership; earthquake preparedness; landmark and historic building preservation; and protection of open space. Prior to issuing a permit for any project which requires an Initial Study under the California Environmental Quality Act (CEQA), or adopting any zoning ordinance or development agreement, the City is required to find that the proposed project or legislation is consistent with the Priority Policies. The motion by the Planning Commission approving or disapproving the project will contain the analysis determining whether the project is in conformance with the Priority Policies.

Plans and policies will be discussed in the EIR. The EIR will also address the status of the proposed Transbay Redevelopment Area Plan. (The project site is within the proposed Transbay

Redevelopment Project Area. That proposal is currently under review by the San Francisco Planning Department and is subject to future refinement and future approvals.)

Environmental plans and policies, like the Bay Area Air Quality Management District's 1997 Clean Air Plan, directly address physical environmental issues and/or contain standards or targets that must be met in order to preserve or improve specific components of the City's physical environment. The proposed project would not obviously or substantially conflict with any such adopted environmental plan or policy.

ENVIRONMENTAL EFFECTS

Except for the categories of transportation, air quality, and wind as noted above, all items on the Initial Study Checklist herein have been checked "No" indicating that, upon evaluation, staff has determined that the proposed project could not have a significant adverse environmental effect in those areas checked "No". For items where the conclusion is "To be Determined", the analysis will be conducted in the EIR. Several checklist items have also been checked "Discussed" indicating that the Initial Study text includes discussion of that particular issue. For all of the items checked "No" without discussion, the conclusions regarding potential significant adverse environmental effects are based upon field observation, staff experience on similar projects, and/or standard reference material available within the Planning Department, such as the Department's Transportation Guidelines for Environmental Review, or the California Natural Diversity Data Base and maps, published by the California Department of Fish and Game. For each checklist item, the evaluation has considered the impacts of the project both individually and cumulatively.

1. **Land Use** - Could the project:	Yes	No	Discussed
a. Disrupt or divide the physical arrangement of an established community?	_	X	X
b. Have any substantial impact upon the existing character of the vicinity?	_	X	X

As noted in the project description, the site is located in an Francisco's downtown core, immediately northeast of the San Francisco Transbay Terminal. The Yerba Buena Center Redevelopment Area is to the west (west of Second Street); the Rincon Hill neighborhood is about one and one-half blocks to the southeast; and the South of Market neighborhood is to the south and southwest.

The project site is within the proposed Transbay Redevelopment Project Area, the focus of a number of land use and transportation planning efforts. After the 1989 Loma Prieta Earthquake, a substantial portion of this area previously dominated by the Embarcadero Freeway was opened up as a result of freeway demolition; resulting parcels are now vacant and used for surface parking. Besides surface parking lots, the proposed Transbay Redevelopment Project Area contains a mix of light industrial, warehousing/distribution, commercial office, retail,

institutional (educational), live-work, and residential uses. The vacant parcels used as surface parking are the focus of potential rezoning from P (Public) to C-3-O (Downtown Office), or to C-3-O (SD) (Downtown Office Special Development). Office use is the predominant land use within the proposed Transbay Redevelopment Project Area, much of it in newer existing high-rise buildings. There are also some industrial, hotel, institutional (educational), retail, and residential uses. Recent development has consisted primarily of high-rise office towers and residential development.

Residential development in the near and mid-vicinity (within three blocks) of the project site includes residential units in the top seven stories of the 26-story mixed used development at 388 Market Street about two blocks to the north, Rincon Towers at 101 Spear Street about two blocks to the east, and the high-rise residential portion of Hills Plaza complex three blocks to the southeast. Newer residential developments have also been built recently or are under construction in the project vicinity, especially in the Rincon Hill area, including the recently occupied 226-unit Avalon Towers on Beale Street, the 245-unit residential building under construction at 400 Beale Street, and the 200 units recently approved at 331 First Street.

Hotels in the general project vicinity include the Hyatt Regency in Embarcadero Four about four blocks northeast from the site; the Harbor Court at 165 Steuart Street about three blocks east of the site; and the Sheraton Palace at Two New Montgomery Street about three blocks northwest from the site. A hotel is planned in the proposed Transbay Redevelopment Project Area, across Fremont Street from the project site. None of these hotels are extended-stay hotels.

Land uses within a block of the project site are a mix of commercial (office and retail), institutional (educational), transportation and parking uses. High-rise office above ground-floor retail is the predominant use immediately north and east of the site and to the west across Transbay Terminal Plaza; transportation (the terminal) and parking predominate immediately south and southwest of the site.

A six- to seven-foot-wide pedestrian path adjoins the project site on the south. Immediately south of this path are the fenced-in San Francisco Transbay Terminal elevated bus ramps. Currently, the area beneath this portion of the elevated bus ramps is used as surface parking. The three-block-long San Francisco Transbay Terminal and ramps are immediately south, and west of the project site across Fremont Street. The terminal is a structure of local and regional transportation importance, and is used by AC Transit East Bay Bus Service, Muni and Greyhound bus lines; the terminal has direct ramps to the Bay Bridge. The main terminal building and plaza are just west of the project site on the south side of Mission Street between First and Fremont Street. South of Transbay Terminal are a 25-story office building at 199 Fremont Street, a three-story office building at 181 Fremont Street, a two-story office building at 183 Fremont Street, and a four-story office building with ground-floor retail and daycare at 342 Howard Street on the southern portion of the project block (Block 3719).

Across Beale Street and east of the project site, occupying the entire block, is the 30-story 201 Mission Street office building above ground-floor retail, with surface parking surrounding the rear of the building and beneath the elevated Transbay Terminal bus ramps that traverse the southwest corner of the block. At the second level, the 201 Mission Street building is connected

to Beale Street's western sidewalk, immediately adjacent to the project site, by an elevated pedestrian bridge across Beale Street.

North of Mission Street, diagonally east of the site, is the 33-story PG&E office building complex with ground-floor retail and a private garage at 245 Market Street occupying the entire block. Facing the site are the 23-story Bechtel office building with ground-floor retail at 50 Beale Street; and the four-story Heald College School of Business and Technology building with ground-floor retail at 350 Mission Street on the block (Block 3710) immediately north of the project site. The remainder of Block 3710 is occupied by a 34-story office building at 45 Fremont Street; and a 33-story office building above ground-floor retail at 333 Market Street. Diagonally from the project site to the west and north of Mission Street (between Fremont and First Streets) are a 41-story office building above ground-floor retail at 50 Fremont Street, a five-story office building with ground-floor retail at 440-456 Mission Street, a one-story bank building at 75 First Street, a 23-story office building with ground-floor retail at 455 Market Street, and a 36-story office building with ground-floor retail at 425 Market Street.

The project site is currently occupied by a six-story office building over ground-floor retail uses at 301 Mission; a six-story office building at 124 Beale Streets; a two-story industrial building used as offices at 129 Fremont Street; and a vacant and fenced lot at 345 Mission Street. The project is in a transition area between the predominantly high-rise office above ground floor retail use in the Downtown Commercial District to the north, east and west; and parking, transportation uses, and lower-rise office and office support buildings to the south and southwest.

The proposed project would include commercial (office/retail) uses and services in a nine-story podium on the eastern portion of the site; residential and hotel uses in a 58-story tower on the western portion of the site; and three levels of subsurface parking. Office use is the predominant land use in the project area. The proposed residential and hotel uses would be new uses in the immediate project area, similar to such uses in the Rincon Hill and Yerba Buena Center areas and the area to the south of Howard Street. Planned land uses in the proposed Transbay Terminal Redevelopment Area include transportation, residential and hotel uses, including a hotel and plaza across Fremont Street from the site.

The proposed mixed-use development would increase the intensity of existing land uses on the project site, and introduce residential and hotel uses here. The project would be compatible with existing and planned uses in the vicinity, including residential, hotel, retail and office uses existing in the Rincon Hill area and planned for the Transbay Redevelopment Project Area, as well as Yerba Buena Center to the west. The project would not disrupt or divide established neighborhood. It would not result in significant effects related to land use. Therefore, land use will be discussed in the EIR for informational purposes only.

2. **Visual Quality** - Could the project:	Yes	No	Discussed
a. Have a substantial, demonstrable negative aesthetic effect?	_	X	X
b. Substantially degrade or obstruct any scenic view or vista now observed from public areas?	_	X	X
c. Generate obtrusive light or glare substantially impacting other properties?	_	X	X

The proposed project would result in a visual change because it would demolish three existing low-rise buildings dating from the 1900's-1930's, to construct a substantially larger three part development: a 58-story building and a nine-story building connected by a three-story atrium, a port cochere and a three-level subsurface garage. It would thus increase the scale of development on the project site. The existing buildings are an approximately 68-foot-tall (six-story), brick-clad office building with ground-floor retail uses at 301 Mission; an approximately 53-foot-tall (six-story), stucco-finish office building at 124 Beale Streets; and an approximately 20-foot-tall (two-story), industrial building at 129 Fremont Street. A vacant and fenced lot occupies 345 Mission Street, the remaining lot on the project site. The vacant lot was formerly occupied by a 100-foot-tall, nine-story building, damaged in the Loma Prieta earthquake in 1989, and subsequently demolished.

The proposed 605-foot-tall, 58-story building would be substantially taller and larger than existing buildings on the site and existing high-rise office buildings on Mission Street near the project site (there are several 23 to 41-story buildings on the north side of Mission Street across from the site). Nearby high-rise buildings include the 447-foot 100 First Street building across Transbay Terminal Plaza, the 140- to 472-foot 333 Market Street buildings one block northwest of the site, and the 417-foot 201 Mission Street building immediately to the east across Beale Street. The proposed building would be about the same height as the 600-foot-tall 50 Fremont Street building across Mission Street from the Transbay Terminal Plaza, and the 600-foot-tall 101 California Street building, two blocks northwest of the project site across Market Street.[11]

The project would be part of the growing number of high-rise buildings located south of Market Street in the vicinity of the Transbay Terminal. The project would be within the maximum height zoned for the site and planned for this area, with an allowable upper tower extension of 10%. The project thus would not be out of context.

The design of the building would be a contemporary interpretation of the Modernist architectural style. There would be pedestrian-scale, double-story retail spaces fronting Mission Street at the ground level. Structurally and visually, the proposed building would consist of three main

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[11] See http://www.skyscrapers.com/english/worldmap/city/skyscrapers/detail/0.9/101040/sro0001/rpp10/ht3/bt09/ index.html

components: a shorter building, a tower and central atrium. The shorter nine-story structure would be on the eastern portion of the site; the 58-story tower would be on the western portion of the site, oriented along Mission and Fremont Streets; and the three-story central atrium would connect the shorter structure and the tower. The project would include an indoor publicly accessible garden at the ground level, and a private roof garden at the fourth level. The glass facade of the tower would differ from other nearby high-rise structures, which are typically clad with a combination of masonry panels and glass. The project would include landscape and streetscape features.

The massing of the proposed building tower would differ from highrises in the project area, in that it would be slender and thus less bulky than surrounding buildings. It would not have the traditional building base, middle and top of older office buildings and those approved according to Downtown Plan guidelines. The project would have a tall, slender tower connected to a shorter nine-story office building by a transparent central atrium.

The nearest major public open spaces are Justin Hermann Plaza, about three blocks east along The Embarcadero, and Yerba Buena Gardens about three and one-half blocks west along Third Street. The project would be visible from these public open spaces against a backdrop of other high-rise buildings; the project would not substantially alter the view. Although it would be one of the taller buildings near the Transbay Terminal, it would be part of a large group of high-rise buildings. Because of intervening buildings, the view from these open spaces would include the uppermost portion of the proposed building. The project would be visible from public open spaces, including those mentioned and the Transbay Terminal Plaza, and private, publicly accessible spaces such as the plaza associated with the 201 Mission Street building, the PG&E building plaza at 245 Market Street, and the Fremont Center Plaza at 50 Fremont Street. In summary, visual changes on the site would not substantially change or block scenic views or vistas available to the public from open spaces in the area. From long-range vantage points, such as Portrero Hill and Twin Peaks, the project would appear among a number of high-rise buildings forming the City skyline.

The project would be constructed within an increasingly densely built urban area zoned for high-density high-rise development. Although the building's height would be visible from surrounding buildings and other viewpoints, the project would not obstruct publicly accessible scenic views nor have a substantial adverse effect on a scenic vista.

The proposed project would include outdoor lighting typical of retail, hotel, and multi-unit residential buildings in the project vicinity. It would comply with Planning Commission Resolution 9212, which prohibits the use of mirrored or reflective glass. Thus the project would not produce unusual light and glare affecting other properties, nor would it interfere with nighttime views.

Allowable exceptions under Planning Code Section 309, regarding bulk limits and an additional 10% height upper tower extension have been requested under Planning Code Section 263.9, and these would not cause potentially significant effects. Zoning for this C-3-O and the nearby C-3-O (SD) areas envisioned, and allows for, the most dense development in the City and for tall buildings around the City's transit hub, the Transbay Terminal.

Although visual quality is subjective, given the project's proposed exterior materials and the fact that the project would be part of a group of high-rise buildings and within the existing height and bulk zoning for the site, with allowable exceptions, the proposed building would not result in a substantial, demonstrable adverse aesthetic effect, nor would it substantially degrade the visual character of the site and its surroundings.

In light of the above, the project would not result in significant impacts related to visual quality and urban design, and this topic requires no further discussion in the EIR. Because of the height and bulk of the proposed building, design-related Planning Code Section 309 exceptions being requested, and the additional 10% height (upper tower extension) requested under Planning Code Section 263.9, visual quality will be discussed in the EIR for informational purposes, to place the project in context. The EIR will provide several photomontages of the proposed building in the context of surrounding existing and approved structures.

3. **Population** - Could the project:	Yes	No	Discussed
a. Induce substantial growth or concentration of population?	_	X	X
b. Displace a large number of people (involving either housing or employment)?	_	X	X
c. Create a substantial demand for additional housing in San Francisco, or substantially reduce the housing supply?	_	X	X

Uses in the proposed project would be consistent within the C-3-O (Downtown Office) district, which permits high-density commercial and residential uses. Hotel uses require Conditional Use authorization (CU) in this use district, and Downtown office core, where office use is the predominant land use, and a principal permitted use.

The proposed project would demolish a total of about 173,650 sq.ft. of existing commercial space.[12] At full occupancy, the site is estimated to have included approximately 510 office employees, and approximately 60 retail employees; a total of approximately 570 employees.[13] The businesses and employees on the site would be expected to relocate, or to have relocated,

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[12] The demolition would include about 140,000 gsf of office space, about 20,200 of retail space and about 13,450 gsf of basement storage space. Approximately 130,000 gsf of office space comprising 301 Mission Street was required to be demolished following the Loma Prieta earthquake.

[13] Based on a standard multiplier of 275 sq.ft. per employee in office space, based on San Francisco Planning Department transportation analysis guidelines and Keyser Marston Associates, Inc., *San Francisco Cumulative Growth Scenario: Final Technical Memorandum,* prepared for the San Francisco Redevelopment Agency, March 30, 1998 (Hereinafter Keyser Marston Associates, Inc., March 1998*)*. Retail employment density estimated at 350 sq.ft. per employee, based on San Francisco Planning Department transportation analysis guidelines.

within San Francisco or elsewhere in the Bay Area. Business displacement in this context is an economic impact that would not be a physical environmental impact under CEQA.

The proposed office use would be expected to include approximately 480 office employees, the proposed retail use approximately 20 retail employees, the proposed hotel approximately 100 employees.[14] There would also be about 15 parking, janitorial, maintenance and building management employees. The proposed development would be expected to add a total of approximately 615 employees to San Francisco's economy, for a net increase of approximately 45 employees on the site.[15]

This increase in employment would be about 0.006% of total employment of 731,660 employees projected for San Francisco in year 2020, and it would be about 0.04% of employment growth of 102,800 jobs projected from 2000-2020.[16] This potential increase in employment would be very small in the context of total employment in San Francisco.

Increases in a city's employment in turn increase demand for local housing. San Francisco is the central city (and most urban place) in an attractive region and consistently ranks as one of the most expensive housing markets in the United States. The San Francisco Bay Area is known for its agreeable climate, open space, recreational opportunities, cultural amenities, a strong and diverse economy, and prominent educational institutions. As a regional employment center, San Francisco attracts people who want to live close to where they work. These factors continue to support a strong demand for housing in San Francisco. Providing new housing to meet this strong demand is particularly difficult because the amount of land available is limited and land and development costs are relatively high.

During the period of 1990-2000, the number of new housing units completed citywide ranged from a low of about 380 units (1993) to a high of about 2,065 units (1990) per year. The citywide annual average over that 11-year period was about 1,130 units.[17]

In March 2001, the Association of Bay Area Governments (ABAG) projected regional needs in the Regional Housing Needs Determination (RHND) 1999-2006 allocation. The projected need of the City for 2006 is 20,372 dwelling units or an average yearly need of 2,716 net new dwelling units. The proposed project would add about 271 residential units to the City's housing stock, towards meeting this need.

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[14] *Ibid.* Based on employment density factors of 275 sq.ft. per employee for office use, of 350 sq.ft. per employee for retail use, and of 0.75 employee per hotel room.

[15] The addition of 615 jobs minus displacement of 570 jobs (as estimated for full occupancy of the existing buildings on the project site) would bring the net new employment at the site to approximately 45.

[16] Data from Association of Bay Area Governments, *Projections 2000,* located at http://www.abag.ca.gov/abag/overview/pub/p2000

[17] San Francisco Planning Department, *Data and Needs Analysis - Part 1 of the 2001 Housing Element Revision,* June 1, 2001, p. 23.

Based on an employed-resident density factor of 1.63 employee per household,[18] the increase in employment due to project development would create an additional demand for about 28 residential units (45 net new jobs divided by a factor of 1.63 employees per household results in a demand for 28 residential units). The demand for about 15 residential units would have to be met by housing in San Francisco; the demand for the remaining 13 units would be met by housing outside the City.[19] Thus, the project would not create substantial demand for new housing. The project is a mixed-use development and proposes to build about 271 residential units as noted. Housing demand in and of itself is not a physical environmental effect. An imbalance between local employment and housing, however, can lead to long commutes with corresponding traffic and air quality impacts. Traffic and Air Quality effects associated with project implementation will be analyzed in the EIR.

As stated above, there is substantial demand for new residential units in San Francisco. Based on standard household density factors (about 1.8 persons per dwelling unit) in use in San Francisco,[20] the proposed development is estimated to accommodate approximately 488 people. Currently, there are no residential units on the site. The increase in numbers of residents on the project site would not substantially increase the area-wide population, and the resulting density would not exceed levels that are common and accepted in high density urban areas such as San Francisco. Therefore, the project's population increase would not be a significant effect.

Based on the above analysis, no significant physical environmental effects on housing demand or population would occur due to the project, and these issues require no further analysis in the EIR.

4. **Transportation/Circulation** - Could the project:	Yes	No	Discussed
a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system?			To be determined
b. Interfere with existing transportation systems, causing substantial alterations to circulation patterns or major traffic hazards?			To be determined

[18] Keyser Marston Associates, Inc. and Gabriel Roche, Inc., *Jobs Housing Nexus Analysis, City of San Francisco*, July 1997, Section III, p. 32.

[19] Op. cit., Keyser Marston Associates, Inc., July 1997, Section III, p. 33. It is assumed that about 55% of San Francisco employees will seek housing in San Francisco.

[20] City and County of San Francisco Planning Department and San Francisco Redevelopment Agency, *Mission Bay Final Subsequent EIR*, Planning Department File No. 96.771E, SCH No. 97092068, Vol. IV, Appendices, Table C.6, p. C.5, certified September 17, 1998. The project proposes about 271 residential units.

	Yes	No	Discussed
c. Cause a substantial increase in transit demand which cannot be accommodated by existing or proposed transit capacity?	To be determined		
d. Cause a substantial increase in parking demand which cannot be accommodated by existing parking facilities?	To be determined		

The proposed commercial and residential uses of the project would generate a demand on the local transportation system, including increased traffic, transit demand, and parking demand. The EIR will analyze project effects related to transportation and circulation, including intersection operations; transit demand; and impacts on pedestrian circulation; parking; bicycles; and freight loading, as well as construction impacts. The analysis will take into account the Bay Bridge west span retrofit construction activities (scheduled to be completed by early 2002),[21] and the planned transit oriented development associated with the Transbay Terminal/Caltrain Downtown Extension/Redevelopment Plan project.

5. Noise - Could the project:	Yes	No	Discussed
a. Increase substantially the ambient noise levels for adjoining areas?	__	X	X
b. Violate Title 24 Noise Insulation Standards, if applicable?	__	X	X
c. Be substantially impacted by existing noise levels?	__	X	X

Outdoor noise in the vicinity of the project area includes numerous potential sources of noise. The most significant existing source of noise throughout most of San Francisco is traffic. This is especially true of the project area because of the proximity of Interstate 80 and the Bay Bridge connection routes, the Transbay Transit Terminal bus ramps, and traffic, including transit on Mission Street. Non-traffic noise sources in the area include temporary noise from construction of other developments in the vicinity, such as the Interstate 80 freeway ramps and the Bay Bridge seismic retrofit. The nearest sensitive receptors to the project site are scattered residential uses in the area, including the residential development at 388 Market Street, at the corner of Market and Pine Street north of the project, as well as the institutional/educational uses at Heald College School of Business and Technology on the block immediately north of the project site, and at Golden Gate University about one and one-half blocks west of the site.

Construction Noise. Demolition, excavation and building construction would temporarily increase noise in the site vicinity. Construction activities from the project potentially could include excavation and hauling, foundation construction, steel erection, and finishing. The

[21] See Caltrans website for schedule: http://www.dot.ca.gov/dist4/castspans/projects.html.

construction period, including demolition and grading, would last approximately 36 months. Approximately four months would be devoted to demolition, excavation, and grading; approximately six months would be devoted to foundation and other below-grade work; and approximately 26 months would be devoted to erection and finishing. Construction noise levels would fluctuate depending on construction phase, equipment type and duration of use, distance between noise source and listener, and presence or absence of barriers. Impacts would be temporary and intermittent, and would be limited to the period during which the foundations and exterior structural and facade elements would be built. Interior construction noise would be substantially reduced by the exterior walls.

The buildings would probably have pile foundations; therefore pile driving would be likely to occur. Pile driving would generate noise and possibly vibrations that could be considered an annoyance by occupants of nearby buildings. In general, pile driving noise could be about 90 decibels (dBA) during impact at about 100 feet from the site. Pile driving would be expected to last up to about two months. Noise levels at receptors near the project site would depend on their distance from the source and on the presence or absence of noise barriers. The noise of the pile driver would be most noticeable directly in front of the construction site. Vibrations from the pile driving could be felt in adjacent buildings, such as the Transbay Terminal, and nearby retail and office buildings.

Construction noise is regulated by the San Francisco Noise Ordinance (Article 29 of the Police Code). The ordinance requires that noise levels from individual pieces of construction equipment, other than impact tools, not exceed 80 dBA at a distance of 100 ft. from the source. Impact tools, such as jackhammers and impact wrenches, must have both intake and exhaust muffled to the satisfaction of the Director of Public Works. Section 2908 of the Ordinance prohibits construction work between 8:00 p.m. and 7:00 a.m., if noise would exceed the ambient noise level by 5 dBA at the project property line, unless a special permit is authorized by the Director of Public Works. The project demolition and construction operations would comply with the Noise Ordinance requirements. Compliance with the Noise Ordinance is required by law and would reduce any impacts to a less-than-significant level.

To further minimize noise and vibration from pile driving, the project sponsor would require project construction contractors to predrill holes to the maximum depth feasible on the basis of soil conditions. Contractors would be required to use construction equipment with state-of-the-art noise shielding and muffling devices. The project sponsor would also require that contractors schedule pile driving activity for times of the day that would minimize disturbance to neighbors, consistent with the Noise Ordinance. See Mitigation Measure 1, p. 48.

Construction of other nearby projects, such as in the proposed Transbay Redevelopment Project Area, that might coincide with construction of the proposed development could temporarily increase the overall noise levels in the immediate vicinity of construction activities, as the noise intensity would be greater with a larger number of noise sources. Construction in the proposed Transbay Redevelopment Project Area would be spread over a number of years, There could be increased intensity of impacts with overlapping construction, or impacts could extend over a longer period of time, if construction is in sequence. Noise from overlapping construction or construction in sequence would remain temporary and intermittent.

Based on the above analysis, construction noise would not be significant and requires no further analysis in the EIR.

Traffic Noise. Ambient noise levels in the vicinity of the project are typical of noise levels in downtown San Francisco. The ambient noise is dominated by vehicular traffic, including trucks, cars, transit, and emergency vehicles. Generally, traffic must double in volume to produce a noticeable increase in noise levels. Traffic volumes would not be expected to double as a result of the project; therefore, substantial increases in traffic noise levels would not be anticipated in the project area. Traffic noise will not be analyzed further in the EIR.

Building Equipment Noise. The proposed project would include mechanical equipment, such as air conditioning units and chillers, which could produce operational noise. These operations would be subject to the San Francisco Noise Ordinance, Article 29, Section 2909, which limits noise from building operations. Substantial increases in the ambient noise level due to building equipment noise would not be anticipated. At the project location, operational noise would not be expected to be noticeable, given background noise levels in this area. No further analysis is necessary and the EIR will not discuss building equipment noise further.

Interior Noise and Existing Noise Levels

Residential and hotel uses would be included in the proposed development. Title 24 of the California Code of Regulations establishes uniform noise insulation standards for residential projects (including hotels and motels). The Department of Building Inspection (DBI) would review the final building plans to insure that the building wall and floor/ceiling assemblies meet state standards regarding sound transmission.

The existing background noise levels in the project area are typical of, or possibly higher than typical noise levels in downtown San Francisco. The existing noise would be occasionally noticeable within the proposed building and would dominate the noise environment of the proposed project's exterior publicly accessible open space (the outdoor terraces on the south side of the site). Because the proposed development would comply with the Title 24 noise insulation requirements, the existing noise environment would not significantly affect occupant use. Based on this information, the effect of existing noise levels on the proposed development will not require further analysis in the EIR.

In summary, with the mitigation measure identified herein, noise impacts, including construction, traffic, operational, and interior noise, would not have a significant impact and require no further analysis in the EIR.

6. **Air Quality/Climate** - Could the project:	Yes	No	Discussed
a. Violate any ambient air quality standard or contribute substantially to an existing or projected air quality violation?			To be determined

	Yes	No	Discussed
b. Expose sensitive receptors to substantial pollutant concentrations?	__	X	X
c. Permeate its vicinity with objectionable odors?	__	X	X
d. Alter wind, moisture or temperature (including sun shading effects) so as to substantially affect public areas, or change the climate either in the community or region?	To be determined		

Effects on Ambient Air Quality

Construction Emissions. Demolition, excavation, grading, foundation and other ground disturbing construction activity would temporarily affect localized air quality for up to about six months, causing a temporary increase in particulate dust and other pollutants. Excavation and movement of heavy equipment could create fugitive dust and emit nitrogen oxides (NOx), carbon monoxide (CO), sulphur dioxide (SO_2), reactive organic gases, or hydrocarbons (ROG or HC), and particulate matter with a diameter of less than 10 microns (PM_{10}) as a result of diesel fuel combustion.

Dust emission during demolition and excavation would increase particulate concentrations near the site. Dustfall can be expected at times on surfaces within 200 to 800 feet. Under high winds exceeding 12 miles per hour, localized effects including human discomfort might occur downwind from blowing dust. Construction dust is composed primarily of particularly large particles that settle out of the atmosphere more rapidly with increasing distance from the source and are easily filtered by human breathing passages. In general, construction dust would result in more of a nuisance than a health hazard in the vicinity of construction activities. About one-third of the dust generated by construction activities consists of smaller size particles in the range that can be inhaled by humans (i.e. particles 10 microns or smaller in diameter known as PM_{10}), although those particles are generally inert. More of a nuisance than a hazard for most people, this dust could affect persons with respiratory diseases immediately downwind of the site, as well as sensitive electronics or communications equipment.

While construction emissions would occur in short-term, temporary phases, they could cause adverse effects on local air quality. The Bay Area Air Quality Management District (BAAQMD), in its CEQA Guidelines, has developed an analytical approach that obviates the need to quantitatively estimate these emissions. To this end, the BAAQMD has identified a set of feasible PM_{10} control measures for construction activities. The project would include these measures to reduce the effects of construction activities to an insignificant level. They would include wetting down the site twice daily, covering soil, sand, and other material; and daily street sweeping around the demolition and construction sites (see Mitigation Measure 2 on pp. 48-49). San Francisco Ordinance 175-91, adopted by the Board of Supervisors on May 6, 1991, requires that non-potable water be used for dust control activities. Therefore, contractors would obtain reclaimed water from the San Francisco Clean Water Program. Because the project would

include this mitigation measure and measures required by ordinance, it would not cause significant construction-related air quality effects. Therefore, the EIR will not address these effects further.

Traffic Emissions. Air quality impacts from the proposed project, as well as cumulative impacts related to development of the project and other projects in the vicinity, would occur due to increased traffic in the region. Region-wide emissions will be assessed in the EIR and compared to the BAAQMD's significance thresholds for regional impacts. Also of concern are CO emissions and the possibility of exceeding CO standards at congested intersections and near sensitive receptors. The impact of vehicular CO emissions on local ambient air quality will be assessed in the EIR. CO concentrations will be estimated for existing, existing-plus-project, and future-with-project conditions. The results of the analysis will be compared to state and federal ambient air quality standards to evaluate impacts.

Toxic Air Contaminant Emissions/Objectionable Odors

The proposed project would include new retail, office, hotel and residential space, as well as new parking areas. These uses could require operation of natural-gas-fired boilers or chillers that could emit trace quantities of toxic air contaminants, but they are not expected to have the potential to generate toxic air contaminants in substantial amounts or create objectionable odors. Therefore, the EIR will not discuss this issue further.

Wind

In order to provide a comfortable wind environment for people in San Francisco, the City established specific comfort criteria to be used in the evaluation of proposed buildings in certain areas of the City. The City Planning Code thus sets forth wind criteria for the proposed project, which is in the C-3 District. Planning Code Section 148(a) establishes comfort criteria of 11 miles per hour (mph) equivalent wind speed for pedestrian areas and 7 mph for seating areas, not to be exceeded more than 10% of the time year-round, between 7:00 a.m. and 6:00 p.m. Section 148(a) also establishes that no building or addition would be permitted in C-3 districts that would cause equivalent wind speeds to exceed the hazard level of 26 miles per hour for more than a single full hour per year. No exception may be granted to this latter criterion. The project would develop the site with a building ranging in height from about 125 feet to about 605 feet, about 535 feet taller than the tallest existing building on the site. Because the project would result in a substantial increase in height and mass on the site, and because of the requirements of Section 148 (a), the EIR will analyze the project's effects on existing wind conditions. A wind tunnel test will be performed and the effects of the project will be compared to the applicable criteria.

Shadow

City Planning Code Section 295 restricts net new shadow upon public spaces under the jurisdiction of the Recreation and Park Department by any structure exceeding 40 feet unless the City Planning Commission, in consultation with the Recreation and Park Department, finds the impact to be insignificant. Shadow studies prepared pursuant to Section 295 show that the project would not cast any net new shadow on potentially affected open spaces under the

jurisdiction of the Recreation and Park Department including Justin Hermann Plaza, Union Square, St. Mary's Square, Portsmouth Square, the Chinese Playground, and Maritime Plaza. Therefore, project shadows would not have a significant impact.[22] The proposed project would increase shadows on the existing Transbay Terminal Plaza, and could potentially increase shadows on other publicly accessible open spaces and sidewalks in the vicinity. A shadow study showing project shadow in the project vicinity, over the day and year, will be completed. The EIR will discuss its results for informational purposes.

7. **Utilities/Public Services** - Could the project:	Yes	No	Discussed
a. Breach published national, state or local standards relating to solid waste or litter control?	_	X	X
b. Extend a sewer trunk line with capacity to serve new development?	_	X	X
c. Substantially increase demand for recreation or other public facilities?	_	X	_
d. Require major expansion of power, water, or communications facilities?	_	X	X

The proposed project is on a site that is currently served by fire, police, solid waste collection, recreational facilities, water, gas, and electricity. The project proposes to increase development on the site. Thus, the project would increase the demand for and use of public services and utilities on the site, and would increase water and energy consumption, but not in excess of amounts expected and provided for in this area. No need for any expansion of public utilities or public service facilities is anticipated due to the project.

Downtown residential units are less likely to be occupied by families with children, than units elsewhere in the City. Even assuming the project's residential space were to be occupied by the number of children typical of San Francisco as a whole, there could be up to 72 school-age children (spread among elementary school, middle school and high school) living in the proposed residential units.[23] Given this number of additional new students, development of the proposed project would not require the construction of a new school, and all new students could

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[22] CADP, *301 Mission Street, Analysis of Shadows on Recreation and Park Department Properties,* January 11, 2002. This report is on file with the Planning Department, 1660 Mission Street, San Francisco, and is available for public review as part of the project file.

[23] City and County of San Francisco Planning Department and San Francisco Redevelopment Agency, *Mission Bay Final Subsequent EIR*, Planning Department File No. 96.771E, SCH No. 97092068, Vol. IV, Appendices, L. Community Services and Utilities, pp. L.3-4 and Table L.1, p. L.5, certified September 17, 1998. For typical San Francisco neighborhoods, this report estimates children of ages 5 through 9 comprise about 5.5% of the total population; children of ages 10 through 14 comprise about 6% of the total population; and children of ages 15 through 17 comprise about 3.3% of the total population. Therefore, there could be as many as 72 school-age children amongst the projected 488 occupants of the proposed project.

be accommodated by existing schools under the jurisdiction of the San Francisco Unified School District (SFUSD). The project would be required to pay City school fees.

Therefore, the project would result in a less-than-significant impact on public services and utilities, and this topic will not be included in the EIR.

Power and Communications Facilities

The project site is served by power and communication facilities. The new building would require typical utility connections and could tap into existing power and communications grids. Therefore, no new power or communications facilities would be necessary as a result of project implementation.

The proposed project would increase demand for and use of public services, but not in excess of amounts expected and provided for in this area. San Francisco consumers have recently experienced rising energy costs and uncertainties regarding the supply of electricity. The root causes of these conditions are under investigation and are the subject of much debate. Part of the problem is thought to be that the State does not generate sufficient energy to meet its demand and must import energy from outside sources. Another part of the problem may be the lack of cost controls as a result of deregulation. The California Energy Commission (CEC) is currently considering applications for the development of new power-generating facilities in San Francisco, the Bay Area, and elsewhere in the State. These facilities could supply additional energy to the power supply "grid" within the next few years. These efforts, together with conservation, will be part of the statewide effort to achieve energy sufficiency. The project would not be built and occupied until about 2005; therefore, additional generating facilities may have been completed by the time the project is in operation. The project-generated demand for electricity would be negligible in the context of the overall demand with San Francisco and the State, and would not in and of itself require a major expansion of power facilities. Therefore, the energy demand associated with the proposed project would not result in a significant physical environmental effect.

8. **Biology** - Could the project:	Yes	No	Discussed
a. Substantially affect a rare or endangered species of animal or plant, or the habitat of the species?	__	X	X
b. Substantially diminish habitat for fish, wildlife or plants, or interfere substantially with the movement of any resident or migratory fish or wildlife species?	__	X	X
c. Require removal of substantial numbers of mature, scenic trees?	__	X	_

No known rare, threatened or endangered species are known to exist in the vicinity. The proposed project is in a developed urban area and does not support or provide habitat for any

rare or endangered wildlife species. No other important biological resources exist on the site, which is completely covered by impervious surfaces and a vacant lot that does not provide habitat. Development of the site would not affect plant or animal habitats. The project would not interfere with any resident or migratory species. Therefore, this topic requires no further analysis and will not be discussed in the EIR.

9. **Geology/Topography** - Could the project:	Yes	No	Discussed
a. Expose people or structures to major geologic hazards (slides, subsidence, erosion and liquefaction)?	_	X	X
b. Change substantially the topography or any unique geologic or physical features of the site?	_	X	X

Geological Hazards

The Community Safety Element of the *San Francisco General Plan* contains maps that show areas of the City subject to geologic hazards. The project site is located in an area subject to "non-structural to moderate" damage (Modified Mercalli Intensity VII to VIII) from seismic groundshaking originated by a characteristic earthquake (Moment Magnitude 7.1) along the San Andreas fault approximately six miles southwest of San Francisco, and the Northern Hayward fault approximately 12 miles northeast of San Francisco (Maps 2 and 3 in the Community Safety Element). During a major earthquake on a segment of one of the nearby faults, strong to very strong shaking is expected to occur at the project site.[24] The project site is not in an area subject to landslide, seiche or tsunami run-up, or reservoir inundation hazards (Maps 5, 6, and 7 in the Community Safety Element).[25] The project site is not in an Alquist-Priolo Earthquake Fault Zone.[26]

The project site is located in an area of liquefaction potential (Map 4 of the Community Safety Element of the *San Francisco General Plan*), in a Seismic Hazards Study Zone (SHSZ) designated by the California Division of Mines and Geology.[27] For any development proposal in an area of liquefaction potential, the DBI will, in its review of the building permit application, require the project sponsor to prepare a geotechnical report pursuant to the State Seismic

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[24] Treadwell & Rollo, Inc., *Geotechnical Investigation for 301 Mission Street, San Francisco, California,* August 14, 2001, (hereinafter Treadwell & Rollo, *Geotechnical Investigation*), p. 11. This report is on file with the Planning Department, 1660 Mission Street, San Francisco, and is available for public review as part of the project file.

[25] *Ibid.* See also City and County of San Francisco, *Community Safety Element, San Francisco General Plan*, April 1997.

[26] California Division of Mines and Geology, *Fault Rupture Hazards Zone in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zone Maps,* Special Publication 42, revised 1997, Figure 4B.

[27] *Ibid.*

Hazards Mapping Act. The report would assess the nature and severity of the hazard(s) on the site and recommend project design and construction features that would reduce the hazard(s).

A preliminary geotechnical investigation was prepared for the project site by a California-licensed geotechnical engineer, and is summarized here.[28] The project site is generally flat and the site elevation is approximately nine feet above mean sea level.[29] The project site is a filled portion of Yerba Buena Cove.[30] Three existing buildings and a fenced, vacant lot presently occupy the site. The 345 Mission Street vacant lot was formerly occupied by a nine-story building with one basement level. The building was demolished after it was damaged in the 1989 Loma Prieta earthquake; the rubble and building debris from the demolition were used to fill the basement level. The old basement slab and foundations are still present beneath the site.[31] The old basement slab, consisting of about five to eleven inches of concrete, was encountered approximately 11 feet below the ground surface. About three feet of concrete was encountered below the old basement slab, to depths of about 15 to 17 feet below the ground surface.[32]

The geotechnical investigation indicates the subsurface conditions at the site consist of up to 23 feet of heterogenous fill. The fill generally consists of very loose to loose sandy gravel and gravelly sand with large amounts of rubble, which includes concrete, wood and brick debris.[33] The fill is underlain by relatively compressible Marine Deposits extending to depths of about 43 to 44 feet below the ground surface. The Marine Deposits consist primarily of very soft to medium stiff clay, clay with sand and sandy clay interbedded with very loose to medium dense sand and clayey sand.[34] Consolidation tests performed on representative samples of the clay show that it is overconsolidated.[35] Below the Marine Deposits, dense to very dense sand with varying amounts of clay and silt was encountered. The sand extended to depths ranging from 80 to 101 feet below the ground surface. Some interbedded layers of medium dense sand and medium stiff to stiff sandy clay, approximately seven to twelve feet and five to eleven feet in thickness, respectively, were also encountered within the dense-to-very-dense sand layer. The sandy soil is underlain by stiff to hard clay and sandy clay, locally known as Old Bay Clay, to the maximum explored depth of 155.5 feet below the ground surface.[36]

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[28] Treadwell & Rollo, *Geotechnical Investigation*.

[29] Treadwell & Rollo, Inc., *Phase I, Environmental Site Assessment for 124 Beale Street, 129 Fremont Street, 301 Mission Street, and 345 Mission Street, San Francisco, California,* June 28, 2001, (hereinafter Treadwell & Rollo, *Phase I),* p. 3. This report is on file with the Planning Department, 1660 Mission Street, San Francisco, and is available for public review as part of the project file.

[30] According to the 1853 U.S. Coast Survey Map of San Francisco.

[31] Treadwell & Rollo, *Geotechnical Investigation*, p. 6. The type of foundation system the building was supported on is unknown, as foundation plans for the previous building are not available at this time.

[32] *Ibid.*, p. 7. The old basement slab and concrete are remnants of the foundation system for the nine-story structure that previously existed at this lot.

[33] *Ibid.*, p. 6.

[34] *Ibid.*

[35] *Ibid.*, p. 7. Overconsolidated soil has experienced greater loads that than the present weight of soil overburden.

[36] *Ibid.*

Groundwater was encountered on site at elevations ranging from 12 to 15.5 feet below the ground surface. On the basis of available groundwater information at nearby sites, including the 199 Fremont Street site, the groundwater level at the project site was estimated to be about 10 to 12 feet below the ground surface.[37] The high groundwater level at the project site was judged to be about 6 feet below the ground surface.[38] Regional groundwater flow in the area is believed to be to the north-northeast, towards San Francisco Bay.[39]

The proposed project would require excavation to a depth of about 40 feet below street grade and would result in the removal of about 74,300 cubic yards of soil. The loose to medium-dense sand and a large amount of Marine Deposits below the fill, encountered in the upper 35 feet, would be removed during excavation for the proposed basements.[40] Therefore, settlement from differential compaction would not occur below the foundation level. However, layers of saturated, loose to medium-dense sand exist below the proposed basement excavation, within the Marine deposits and the dense sand layer below. Analyses of subsurface information indicate the saturated, loose to medium-dense clayey and silty sand encountered below the proposed excavation is susceptible to liquefaction during a moderate to large earthquake on one of the nearby faults. It is estimated that liquefaction-induced settlement of about one inch may occur beneath the building footprint.[41] According to the report, outside of the excavation, significant subsidence of streets and sidewalks could occur during an earthquake. This settlement is expected to be random and erratic, and could disrupt utilities and damage sidewalks and streets.

The primary technical concerns are the magnitude of seismically-induced ground settlement resulting from liquefaction; the presence of compressible Marine Deposits below the entire site; the depth of excavation for the three basement levels; the presence of Marine Deposits at the proposed base of excavation; and the presence of groundwater at a higher level than the proposed excavation depth.

The report contains recommendations summarized below:

Foundations. Because of the composition of the subsurface material at the site, it is recommended that the building structure proposed for the site be supported by deep (driven piles) foundations.[42] The report recommends predrilling of piles.

Shoring. Excavations deeper than five feet entered by workers should be shored or sloped for safety in accordance with the Occupational Safety and Health Administration (OSHA) standards (29 CFR Part 1926). Because there is insufficient space to slope the sides of the deep excavations, the proposed structure would need shoring.[43] Therefore, shoring requirements

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[37] *Ibid.*, p. 8. It is anticipated that the groundwater level would vary a little seasonally depending on the amount of rainfall and time of the year. Previous studies in the area encountered groundwater at an approximate depth of 14 feet below ground surface. See Treadwell & Rollo, *Phase I*, p. 3.

[38] *Ibid.*, p. 8.

[39] Treadwell & Rollo, *Phase I*, p. 3.

[40] *Ibid.*, pp. 12-13.

[41] *Ibid.*, p. 12.

[42] Treadwell & Rollo, *Geotechnical Investigation*, p. 13.

[43] *Ibid.*

would be an important construction consideration.[44] The Treadwell & Rollo geotechnical report recommends soldier pile and lagging, SPTC (soldier pile tremie concrete), and soil/cement walls as the best options for shoring.[45]

Site Preparation and Grading. Old building slabs, foundations and other obstruction would be encountered during installation and excavation within the sandy fill.[46] On-site fill is suitable for reuse provided it is acceptable from an environmental standpoint and meets certain technical requirements.[47]

Dewatering. Because of the shallow nature of the water table, it is likely that dewatering would be necessary[48] (discussed further in the "Water" section herein) to reduce the potential settlement effects of dewatering on nearby streets and properties.

The geotechnical report found the site suitable for development, providing that the recommendations included in the report were incorporated into the design and construction of the proposed development. The sponsor has agreed to follow the recommendations of the report in constructing the project.

To ensure compliance with all San Francisco Building Code provisions regarding structural safety, when DBI reviews the geotechnical report and building plans for a proposed project, it will determine necessary engineering and design features for the project to reduce potential damage to structures from groundshaking and liquefaction. Therefore, potential damage to structures from geologic hazards on the project site would be mitigated through the DBI requirement for a geotechnical report and review of the building permit application pursuant to its implementation of the Building Code.

Topography/Unique Geological Features

The site is essentially level. The proposed project would not alter the topography of the site, or otherwise affect any unique geologic or physical features of the site.

In view of the above, the project would not have a significant effect regarding geology, provided the geotechnical engineer's recommendations are followed. Therefore, this topic requires no further analysis in the EIR.

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[44] *Ibid.* Shoring, dewatering, excavation monitoring and unstable subgrade are discussed in detail in the Treadwell & Rollo report on pp. 14-18. According to the report (p. 14), additional concerns are the presence of concrete rubble and debris in the fill, and the presence of Marine Deposits exposed at the base of the basement excavation.

[45] *Ibid.*, p. 15.

[46] *Ibid.*, p. 18.

[47] *Ibid.*

[48] *Ibid.* Excavation for the basement level would extend about 33 feet below the high groundwater level.

10. **Water** - Could the project:	Yes	No	Discussed
a. Substantially degrade water quality, or contaminate a public water supply?	_	X	X
b. Substantially degrade or deplete groundwater resources, or interfere substantially with groundwater recharge?	_	X	X
c. Cause substantial flooding, erosion or siltation?	_	X	X

Water Quality

The project would not substantially degrade water quality or contaminate a public water supply. All sanitary wastewater from the proposed buildings and stormwater runoff from the project site would be collected and treated at the Southeast Water Pollution Control Plant prior to discharge in San Francisco Bay. Treatment would be provided pursuant to the effluent discharge limitations set by the Plant's National Pollutant Discharge Elimination System (NPDES) permit. See "Flooding, Erosion, and Siltation" below for a discussion of water quality during construction.

Reclaimed Water. The project site is within the Eastside Reclaimed Water Use Area designated by Section 1029 of the Reclaimed Water Use Ordinance (approved November 7, 1991), which added Article 22 to Part II, Chapter X of the San Francisco Municipal Code (Public Works Code). Effective 180 days from the date of the ordinance, non-residential projects over 40,000 sq. ft. which require a site permit, building permit, or other authorization, and are located within this area shall provide for the construction and operation of a reclaimed water system for the transmission of reclaimed water within buildings and structures. That is, the building would need to be designed with separate plumbing to service uses (e.g. toilets) that could employ reclaimed water. The ordinance also requires that owners, operators, or managers of all such development projects register their project with the Water Department. The Water Department will then issue a certificate of intention to use reclaimed water, and reclaimed water shall be used unless the Water Department issues a certificate exempting compliance because reclaimed water is not available, an alternative water supply is to be used, or the sponsor has shown that the use of reclaimed water is not appropriate. The appropriate use of reclaimed water, when it becomes available, would reduce consumption of potable water in the area.

Groundwater

A large portion of the project site is covered with three existing buildings; the remainder of the site is vacant unpaved land. The project site would be entirely covered with the proposed project. The project would include excavation to about 40 feet in depth to accommodate three levels of underground parking. A geotechnical report for the project site indicated the presence

of groundwater at depths of approximately 10 to 12 feet below the ground surface.[49] The high groundwater level was estimated to be six feet below the ground surface. Because of the shallow water table, it is likely that temporary dewatering would be necessary for this project.

Any groundwater encountered during construction of the proposed project would be subject to requirements of the City's Industrial Waste Ordinance (Ordinance Number 199-77), requiring that groundwater meet specified water quality standards before it may be discharged into the sewer system. Any groundwater pumped from the site shall be retained in a holding tank to allow suspended particles to settle, if this is found necessary by the Bureau of Environmental Regulation and Management of the S.F. Public Utilities Commission, to reduce the amount of sediment entering the storm drain/sewer lines. The Bureau must be notified of projects necessitating dewatering, and may require water analysis before discharge.

The preliminary geotechnical report indicates the potential for structural damage to surrounding structures and utilities due to temporary dewatering at the project site. A final soils report would be required by the DBI to address the potential settlement and subsidence impacts of this dewatering. Based upon this discussion, the report would contain a determination as to whether or not a lateral movement and settlement survey should be done to monitor any movement or settlement of surrounding buildings and adjacent streets. If a monitoring survey is recommended, the DBI would require that a Special Inspector (as defined in Article 3 of the Building Code) be retained by the project sponsor to perform this monitoring. Groundwater observation wells would be installed to monitor the level of the water table and other instruments would be used to monitor potential settlement and subsidence. If, in the judgment of the Special Inspector, unacceptable subsidence were to occur during construction, groundwater recharge would be used to halt this settlement. The project sponsor would delay construction if necessary. Costs for the survey and any necessary repairs to service lines under the street would be borne by the project sponsor.

Flooding, Erosion and Siltation

The site is partially covered with buildings and partially unpaved; therefore, the impervious surfaces at the site would be increased. Project-related wastewater and storm water runoff would continue to flow to the City's combined sewer system and would be treated prior to discharge to standards contained in the City's National Pollutant Discharge Elimination System (NPDES) Permit for the Southeast Water Pollution Control Plant. During construction, requirements to reduce erosion would be implemented pursuant to California Building Code Chapter 33, Excavation and Grading. During operations, the project would comply with all local wastewater discharge requirements. Soil would be exposed during site preparation, but because the project site is relatively flat, the potential for substantial flooding, erosion, or siltation would be low.

Based on the above discussion, the project would not have a significant impact, and hydrology and water quality issues do not require further analysis in the EIR.

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[49] *Ibid.*, p. 8. It is anticipated that the groundwater level would vary a little seasonally depending on the amount of rainfall and time of the year. Previous studies in the area encountered groundwater at an approximate depth of 14 feet below ground surface. See Treadwell & Rollo, *Phase I*, p. 3.

11. **Energy/Natural Resources** - Could the project:	Yes	No	Discussed
a. Encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner?	_	X	X
b. Have a substantial effect on the potential use, extraction, or depletion of a natural resource?	_	X	X

Energy Use

The project includes new residential units, an extended-stay hotel, office space, retail space and parking uses. Development of these uses would not result in use of large amounts of fuel, water or energy in the context of energy use throughout the City and region. The project demand would be typical for a project of this scope and nature and would meet, or exceed, current state and local codes and standards concerning energy consumption, including Title 24 of the California Code of Regulations enforced by DBI. For this reason, the project would not cause a wasteful use of energy, and would have a less-than-significant impact on energy and natural resources, and no further analysis is required in the EIR.

Natural Resource Consumption

The project would use natural gas and coal fuel to generate the electricity for the project. The project would not use substantial quantities of other non-renewable natural resources. It would not use fuel or water in an atypical or wasteful manner. Therefore, the project would not have a significant effect on the use, extraction, or depletion of a natural resource, and no further analysis is required.

12. **Hazards** - Could the project:	Yes	No	Discussed
a. Create a potential public health hazard or involve the use, production or disposal of materials which pose a hazard to people or animal or plant populations in the area affected?	_	X	X
b. Interfere with emergency response plans or emergency evacuation plans?	_	X	X
c. Create a potentially substantial fire hazard?	_	X	X

Public Health Hazards and Hazardous Materials

The proposed project would involve residential, hotel, retail, and office development that would require relatively small quantities of hazardous materials for routine business and household

purposes, during project operation. The development would likely handle common types of hazardous materials, such as paints, cleaners, toners, solvents, and disinfectants. These commercial products are labeled to inform users of potential risks and to instruct them in appropriate handling and disposal procedures. Most of these materials are consumed through use, resulting in relatively little waste. Businesses are required by law to ensure employee safety by identifying hazardous materials in the workplace, providing safety information to workers that handle hazardous materials, and adequately train workers. For these reasons, hazardous materials use by the project would not pose any substantial public health or safety hazards related to hazardous materials. The proposed project would have underground fuel tanks[50] on the site associated with an emergency generator and a water pump for fire fighting. The project would need approval from the DPH to install an underground fuel tank, in addition to approval from any other City department that has permit requirements.[51] The fuel tanks would comply with current safety, hazards, and permit regulations and would not pose any unusual risk to public health or the environment.

Soil and Groundwater

Past Uses of Hazardous Materials. Past activities at the project site and in its vicinity have resulted in the release of contaminants into soil and groundwater. A Phase 1 Environmental Site Assessment, and a Phase II Environmental Site Characterization, performed on the site, were prepared for the site in June and August 2001, respectively.[52] These studies list current and past operations, review environmental agency databases and records, report site reconnaissance observations, summarize potential contamination issues that warrant further investigation (Phase I report), and report laboratory test results for limited soil and groundwater sampling at the site, and preliminary recommendations regarding hazardous materials on site and soil handling procedures (Phase II report). The information available in the two studies is summarized below:

Previous studies in the area encountered groundwater at depths of approximately 10 to 14 feet below ground surface; high groundwater was estimated to be three feet below the ground surface.[53] Regional groundwater flow in the area is believed to be to the north-northeast, towards San Francisco Bay.[54] This suggests that former activities conducted at blocks to the south-southwest of the site have the highest potential to impact soil and groundwater beneath the site.

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[50] Located at the first basement level.

[51] Telephone conversation, Patrick Fosdahl, Senior Environmental Health Inspector, Department of Public Health with Turnstone Consulting, April 15, 2002.

[52] Treadwell & Rollo, Inc., *Phase I Environmental Site Assessment for 124 Beale Street, 129 Fremont Street, 301 Mission Street, and 345 Mission Street, San Francisco, California,* June 28, 2001(hereinafter *Phase I*); and Treadwell & Rollo, Inc., *Environmental Site Characterization for 301 Mission Street, San Francisco, California,* August 13, 2001 (hereinafter *Phase II*). These reports are on file with the Planning Department, 1660 Mission Street, San Francisco, and are available for public review as part of the project file.

[53] Treadwell & Rollo, *Geotechnical Investigation,* p. 8; and Treadwell & Rollo, *Phase I*, p. 3. The information is based on available information at nearby sites, including the 199 Fremont Street site.

[54] Treadwell & Rollo, *Phase I*, p. 3.

Manufacturing, industrial and commercial activities have been operating in the site area since at least the late 1880's, and these have the potential to impact soil and groundwater quality. The 301 Mission Street and 124 Beale Street properties were occupied by machine shops, boiler works, offices, the Dow Steam Pump Works, a restaurant, a kitchen and a wagon room from approximately 1887 to 1899. By 1899, T.J Moynahan's Boiler Works and the Dow Steam Pump Works had taken over all of both properties. By 1913, they were occupied by W. P. Fuller and Co. Paints, Oils, and Glass, and a machine shop. After about 1970, they were occupied by offices.[55]

The 129 Fremont Street and 345 Mission Street properties were previously occupied by Bay City Iron Works and a vacant property from 1887 to approximately 1889. After 1889, these properties were occupied by N.H. Cook Belting Company (leather belts manufacturer), vacant lots, machine shops, and offices. By 1913, they were occupied by a machine shop and a foundry, with some areas still vacant. In 1949, these properties were reportedly occupied by Walton N. Moore Dry Goods Company, and a warehouse. From 1970 till about 1989, the buildings were occupied by Pacific Gas and Electric Company offices[56] After the 1989 Loma Prieta earthquake, the nine-story 345 Mission Street building was demolished because it was damaged, and the basement of the former building was filled in with the debris from the building demolition. Since then, the 345 Mission Street property has been fenced and vacant, and the 129 Fremont Street property has been used as offices.

Regulatory Database Search. The Phase I report contains the results of a search of several government databases and includes sites in the project vicinity that are listed as having documented use, storage, or releases of hazardous materials or petroleum products.[57] The review of public records indicated that the 124 Beale Street, 129 Fremont Street, and 345 Mission Street properties were not listed on any of the regulatory agency databases searched. No records were found at the San Francisco Department of Public Health (SFDPH) or San Francisco Fire Department (SFFD) regarding fuel or hazardous material releases related to these properties.[58] However, files were found at the SFDPH for the 301 Mission Street property. The search identified seven facilities (including one underground storage tank (UST) on site) within one-quarter mile of the site that appear on the regulatory agency lists with potential contamination or other hazardous material issues. All of the six off-site facilities were either cross gradient or down gradient from the project site and would not have caused contamination on the site. Moreover, these facilities were closed underground storage tanks (USTs) that require no further action.

Project Site

According the SFDPH files on the 301 Mission Street property, one 1,500-gallon underground storage tank (UST) containing bunker oil was abandoned-in-place at 301 Mission Street on

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[55] Treadwell & Rollo, *Phase I,* pp. 3-5; and Treadwell & Rollo, *Phase II,* p. 2.

[56] Treadwell & Rollo, *Phase II,* p. 2.

[57] *Ibid.,* p. 6. The Environmental Data Resources, Inc.findings is presented in Appendix B of the *Phase II* report.

[58] *Ibid.*

March 12, 1992.[59] The tank was located in the basement along Mission Street approximately 100 feet west of Beale Street.[60] This tank was most likely used for the demolished 345 Mission Street building.[61] A fill port cover (related to the UST) was located along Fremont Street; the cover is encased in concrete and there is no access to the abandoned tank.[62] On February 27, 1992, the 1,500-gallon tank was triple-rinsed and a sample of the rinsate material was submitted for chemical analysis. The rinsate was analyzed for total petroleum hydrocarbons (TPH) as diesel, total oil and grease. Analytical results indicated concentrations were less than the established 100 parts per million (ppm) limit, and thus the tank closure process was initiated. Soil samples were taken from the vicinity of the tank and analyzed for total oil and grease. Groundwater was not encountered during the excavation of the soil above the tank.[63] No concentrations of oil and grease were detected in the soil samples.[64] Subsequently, on March 12, 1992, the tank was filled with a sand-cement slurry and was properly abandoned in-place. Since no groundwater contamination was encountered and based on analytical results, the potential for this to affect the environmental conditions at the project site is considered minimal.[65]

Nearby Properties

Public files were reviewed for sites in close proximity and in the assumed up-gradient or cross-gradient direction of groundwater flow to the site to evaluate the potential for these sites to impact the site. Near-surface groundwater flow would be expected to serve as the chief transport mechanism for the migration of off-site hazardous materials to the site. The potential for these nearby properties to affect the project site is largely based on their relative location and the regional groundwater flow direction which has been identified to be in the north-northeast direction.[66] A summary of the results is presented below:

Five nearby properties were listed on the State of California registered leaking underground storage tank (LUST) list. At the Federal Reserve Bank at Mission and Main Streets, approximately 247 feet north-northwest and downgradient of the site, a gasoline leak was reported during tank closure on October 10 1990.[67] The potential for this release to affect the project site is considered minimal based on distance and groundwater gradient directions. The Bechtel Building at 50 Beale Street, approximately 332 feet northwest and cross-gradient of the site, was listed because a total of four underground storage tanks were reportedly removed or abandoned in-place for this property between the years 1987 and 1999. A 15,000 gallon double-contained UST used for the emergency generator still exists at 50 Beale Street. It is subject to current tank regulations.

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[59] Treadwell & Rollo, *Phase I,* p. 7; and Treadwell & Rollo, *Phase II,* p. 2.

[60] Treadwell & Rollo, *Phase II,* p. 2.

[61] Treadwell & Rollo, *Phase I,* p. 7.

[62] *Ibid.*, p. 12.

[63] Treadwell & Rollo, *Phase II,* p. 2.

[64] Treadwell & Rollo, *Phase I,* p. 7; and Treadwell & Rollo, *Phase II,* p. 2.

[65] Treadwell & Rollo, *Phase I,* p. 7.

[66] *Ibid.*

[67] *Ibid., p. 8.* No further information was available from the EDR database for the Federal Reserve Bank property and no files were found at the SFDPH or SFFD.

The Transbay Terminal at 425 Mission Street, approximately 455 feet southwest and cross- to up-gradient of the project site, was listed because one 1,500-gallon diesel UST was removed on March 4, 1999. Administrative case closure was granted by the SFDPH on June 21, 1999 with no further action required. The Shorenstein Property at 50 Fremont Street, approximately 495 feet west and cross-gradient of the project site, was listed because one 6,000-gallon diesel UST was removed on September 14, 1994. On February 2, 1995, the SFDPH issued a Notice of Completion Underground Storage Tank Removal requesting no further action. The 45 Fremont Center, approximately 520 feet west and cross-gradient of the site, was listed because one 15,000-gallon UST was removed on October 24, 1994. Administrative case closure was granted by the SFDPH on December 12, 1996 with no further action required.

In summary, seven facilities within the study area, including one UST on the site, appear on the regulatory agency lists. According to the consultant, there is no readily available evidence that these facilities have affected or are likely to affect the environmental conditions of the site. Based on current construction plans, the consultant concluded that the UST on the project site should be properly removed from the site.[68]

Hazardous Materials in Soil. Since the project site was historically part of Yerba Buena Cove of the San Francisco Bay,[69] it is subject to requirements of Article 22A of the San Francisco Public Health Code.[70] The City adopted an ordinance (Ordinance 253-86, signed by the Mayor on June 27, 1986) which requires analyzing soil for hazardous wastes within specified areas designated by the Department of Public Works (DPW) when over 50 cubic yards of soil is to be disturbed. The ordinance specifically includes sites, such as the project site, which are bayward of the high tide line (as shown on maps available from the DPW). San Francisco Building Code Section 106.3.2.4, Hazardous Wastes, relates to implementation of the ordinance, including review by the Department of Public Health (DPH).[71]

Accordingly, in compliance with the Maher Ordinance, a site history and data search (the Phase I), and site investigative report (the Phase II) have been prepared for the project site by an independent consultant.[72] For the Phase II study, samples of the fill material and underlying sand from eleven exploratory borings were collected, chemically tested and evaluated. The objective of the study was to assess the presence of petroleum hydrocarbon and heavy metal contamination of soil and groundwater at the project site.[73] Concentrations of chemical compounds detected in the soil and groundwater samples were compared to state and federal criteria for hazardous waste and disposal options. On the basis of this comparison, preliminary recommendations regarding the presence of hazardous materials at the site, as well as preliminary soil handling procedures, were made.

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[68] Treadwell & Rollo *Phase I,* p. 14.

[69] According to the 1853 U.S. Coast Survey Map of San Francisco.

[70] Treadwell & Rollo *Phase I,* p. 6. The site is bayward of the historic high tide line.

[71] According to Building Code Section 106.3.2.4.2, Permit Approval, no building permit application subject to the requirements of this section shall be approved until the Department receives written notification from the Director of Public Health that the applicant has complied with all applicable provisions of Article 22A of the Public Health Code, or that the requirements have been waived.

[72] Treadwell & Rollo, *Phase I,* p.2; and Treadwell & Rollo, *Phase II,* p. 1.

[73] Treadwell & Rollo, *Phase II,* p. 3.

The borings indicate the site is blanketed by up to 23 feet of fill that consists of very loose to loose sandy gravel and gravelly sand with large amounts of rubble including concrete, wood and brick debris.[74] This fill material is most likely from the 1906 earthquake and fire and is locally known as Earthquake Fill.[75] An old five- to eleven-inch-thick concrete basement slab, and below that, about three feet of concrete were encountered to depths of 15 to 17 feet below the ground surface.[76]

In accordance with Article 22A requirements, the soil samples were analyzed for the presence of hazardous materials and petroleum hydrocarbons in the earthquake fill and underlying sand.[77] All the soil samples collected were analyzed for total lead and total recoverable petroleum hydrocarbons (TRPH).

Total recoverable petroleum hydrocarbons (TRPH) were detected at low levels in nine of the ten soil samples analyzed, at concentrations ranging from 21 to 190 milligrams per kilograms (mg/kg) or parts per million (ppm). Low levels of gasoline were detected in two soil samples at concentrations of 1.1 to 1.3 ppm, respectively. Diesel was detected at low levels in nine of the ten samples analyzed, at concentrations ranging from 2.3 to 100 ppm. Semi-volatile organic compounds (SVOC), p-Isopropyl toluene, was detected at very low levels in one sample at a concentration of 7.4 milligrams per kilogram (ug/kg) or parts per billion (ppb). No asbestos, volatile organic compounds (VOCs), sulfide, or cyanide were detected at or above method reporting limits in the soil samples analyzed.[78]

As noted, all the soil samples collected were analyzed for total lead as well as total recoverable hydrocarbons. Selected samples with elevated concentrations of total lead (greater than 50 parts per million) were also analyzed for soluble lead using the Soluble Threshold Limit Concentration (STLC) by California Waste Extraction Test (WET) method and Federal Toxicity Characteristic Leaching Potential (TCLP) analyses. These soluble lead analyses were performed to assess whether lead concentrations in select soil samples exceeded State and/or Federal hazardous waste levels.[79] Total lead was detected in all of the nine soil samples submitted for chemical analyses at concentrations ranging from 3.2 to 260 ppm. Soluble lead was detected in the one selected sample analyzed, at a concentration of 8.7 mg/kg or parts per million (ppm). No lead was detected at or above TCLP reporting limits in the sample analyzed. These lead levels

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[74] *Ibid.*, p. 4.

[75] Fill material from this period often contains elevated levels of various metals, particularly lead from lead-based paints; and petroleum hydrocarbons. These soil conditions are common throughout the Greater South of Market area. These were also detected in soil samples collected at site.

[76] *Ibid.* This concrete is likely the remnants of the foundation system for the structure that previously existed where the vacant lot is now.

[77] *Ibid.*

[78] *Ibid.*

[79] *Ibid.*, p. 6.

are consistent with elevated levels found in the South of Market area.[80] The remaining metal concentrations were within normal background ranges found in the western United States.[81]

Project plans call for excavation and removal of roughly 65,000 cubic yards of soil from the project site. Were contaminated areas at the project site to be excavated, contaminated soil or groundwater could be encountered. Without appropriate safeguards, earth-moving activities could potentially expose workers and possibly the public to chemical compounds in soils, soil gases (gases or vapors, mostly air, trapped within soil), or groundwater. Exposure would most likely occur through skin contact or inhalation. Workers directly engaged in on-site activities would face the greatest potential for exposure to contaminants. The public could also be exposed if access to the construction site were insufficiently controlled. Hazardous materials exposure could cause short-term or long-term health effects specific to each chemical present at the site if present in sufficient concentration and duration.

Under Article 22A, where hazardous wastes are found in excess of state or federal standards, the sponsor would be required to submit a site mitigation plan (SMP) to the appropriate state or federal agencies, and to implement an approved SMP prior to issuance of any building permit. Where toxics are found for which no standards are established, the sponsor would request a determination from state and federal agencies as to whether an SMP is needed.

Conclusions. The Phase I report revealed that the site is likely underlain with approximately four feet of fill that possibly contains elevated concentrations of petroleum hydrocarbons and metals. The potential presence of these chemicals generally results from past regional industrial and commercial activities and from the debris left by the 1906 earthquake and fire. According to SFDPH files, one 1,500-gallon UST containing bunker oil was abandoned in-place on March 12, 1992 at 301 Mission Street. No concentrations of oil and grease were detected in the two soil samples taken from the vicinity of the UST. The Phase II report concluded this tank should be properly removed when the current building is demolished. There is no readily available evidence that the seven facilities that appear on the regulatory agency lists have affected or are likely to affect the environmental conditions of the site.[82]

The Phase II report, for the project site compared the soil sample analytical results for lead to California Total Threshold Limit Concentration (TTLC) and STLC hazardous waste criteria.

Based on these comparisons, the fill material would likely require disposal at a regulated Class I hazardous and at a Class II non-hazardous waste landfill.[83]

Since the presence of elevated levels of lead was detected at the project site, a Soil Management Plan (SMP) and a Health and Safety (H&S) plan (prepared by others for site contractors) would be required prior to construction. The SMP would include a soil handling plan which segregates the fill material from the underlying native sand. The H&S plan would outline proper soil

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[80] Telephone conversation, Peter J. Cusack, Senior Project Scientist, Treadwell&Rollo with Turnstone Consulting, May 7, 2002.

[81] Cited in U.S.G.S. Professional Paper 1270, Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States, 1984.

[82] Treadwell & Rollo, *Phase I,* p. 7.

[83] *Ibid.,* p. 8.

handling procedures and health and safety requirements to minimize worker and public exposure to hazardous materials during construction.[84]

Building Materials and Chemicals in the Buildings

The existing buildings at the project site were constructed prior to 1970.[85] In the past, asbestos, PCBs, and lead were commonly installed in such materials as fire proofing, floor tiles, roofing tar, electrical transformers, fluorescent light ballasts, and paint. Mercury is common in electrical switches and fluorescent light bulbs. Therefore, some of the buildings on site may contain hazardous materials, such as asbestos, polychlorinated biphenyls (PCBs), lead, mercury, or other hazardous materials. If such hazardous materials exist in a building when it is demolished, they could pose hazards to workers, neighbors, or the natural environment.

Asbestos-containing materials may be found within the existing structures on site which are proposed to be demolished as part of the project. Section 19827.5 of the California Health and Safety Code, adopted January 1, 1991, requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable Federal regulations regarding hazardous air pollutants, including asbestos. The Bay Area Air Quality Management District (BAAQMD) is vested by the California legislature with authority to regulate airborne pollutants, including asbestos, through both inspection and law enforcement, and is to be notified ten days in advance of any proposed demolition or abatement work.

Notification includes the names and addresses of operations and persons responsible; description and location of the structure to be demolished/altered including size, age and prior use, and the approximate amount of friable asbestos; scheduled starting and completion dates of demolition or abatement; nature of planned work and methods to be employed; procedures to be employed to meet BAAQMD requirements; and the name and location of the waste disposal site to be used. The District randomly inspects asbestos removal operations. In addition, the District will inspect any removal operation concerning which a complaint has been received.

The local office of the State Occupational Safety and Health Administration (OSHA) must be notified of asbestos abatement to be carried out. Asbestos abatement contractors must follow state regulations contained in 8CCR1529 and 8CCR341.6 through 341.14 where there is asbestos-related work involving 100 sq.ft. or more of asbestos-containing material. Asbestos removal contractors must be certified as such by the Contractors Licensing Board of the State of California. The owner of the property where abatement is to occur must have a Hazardous Waste Generator Number assigned by and registered with the Office of the California Department of Health Services in Sacramento. The contractor and hauler of the material is required to file a Hazardous Waste Manifest which details the hauling of the material from the site and the disposal of it. Pursuant to California law, the DBI would not issue the required permit until the applicant has complied with the notice requirements described above. These regulations and procedures, already established as a part of the permit review process,

[84] *Ibid.*

[85] Treadwell & Rollo, *Phase I*, p. 5.

would insure that any potential impacts due to asbestos would be reduced to a level of insignificance.

Lead paint may be found in the existing buildings, constructed prior to 1970 and proposed for demolition as part of the project. Demolition must comply with Chapter 36 of the San Francisco Building Code, Work Practices for Exterior Lead-Based Paint. Where there is any work that may disturb or remove lead paint on the exterior of any building built prior to December 31, 1978, Chapter 36 requires specific notification and work standards, and identifies prohibited work methods and penalties.

Chapter 36 applies to buildings or steel structures on which original construction was completed prior to 1979 (which are assumed to have lead-based paint on their surfaces), where more than ten total square feet of lead-based paint would be disturbed or removed. The ordinance contains performance standards, including establishment of containment barriers, at least as effective at protecting human health and the environment as those in the HUD Guidelines (the most recent Guidelines for Evaluation and Control of Lead-Based Paint Hazards) and identifies prohibited practices that may not be used in disturbance or removal of lead-based paint. Any person performing work subject to the ordinance shall make all reasonable efforts to prevent migration of lead paint contaminants beyond containment barriers during the course of the work, and any person performing regulated work shall make all reasonable efforts to remove all visible lead paint contaminants from all regulated areas of the property prior to completion of the work.

The ordinance also includes notification requirements, contents of notice, and requirements for signs. Notification includes notifying bidders for the work of any paint-inspection reports verifying the presence or absence of lead-based paint in the regulated area of the proposed project. Prior to commencement of work, the responsible party must provide written notice to the Director of DBI, of the location of the project; the nature and approximate square footage of the painted surface being disturbed and/or removed; anticipated job start and completion dates for the work; whether the responsible party has reason to know or presume that lead-based paint is present; whether the building is residential or nonresidential, owner-occupied or rental property, and approximate number of dwelling units, if any; the dates by which the responsible party has or will fulfill any tenant or adjacent property notification requirements; and the name, address, telephone number, and pager number of the party who will perform the work. (Further notice requirements include Sign When Containment is Required, Notice by Landlord, Required Notice to Tenants, Availability of Pamphlet related to protection from lead in the home, Notice by Contractor, Early Commencement of Work [by Owner, Requested by Tenant], and Notice of Lead Contaminated Dust or Soil, if applicable.) The ordinance contains provisions regarding inspection and sampling for compliance by DBI, and enforcement, and describes penalties for non compliance with the requirements of the ordinance.

These regulations and procedures by the San Francisco Building Code would ensure that potential impacts of demolition, due to lead-based paint, would be reduced to a level of insignificance.

Chemicals in the Building. On June 11, 2001, a reconnaissance of the project site was conducted by the consultant,[86] to look for visual evidence of past or present use or storage of petroleum products and hazardous materials that could potentially affect the soil and/or groundwater quality at the site. The 301 Mission Street, 124 Beale Street, and 129 Fremont Street buildings are occupied by various tenants including restaurants, offices, retail space, storage, a laboratory, and a printing facility.[87] At the time of site reconnaissance, small amounts of paints, paint thinners, primer, inks, gloss enamel, WD-40, lubricants, acetone, glue, degreaser, oils, and propane fuel were found in these buildings. The basement of 301 Mission Street is connected to the basement of 124 Beale Street. Ten-gallon drums of phosphoric acid were found in the basement of the 124 Beale Street building. The ground floor of 301 Mission Street is occupied by a laboratory run by Bechtel. The laboratory contained various types of unlabelled jars, and small containers, and soil testing equipment. At the time of reconnaissance occupants of the laboratory were conducting soil tests. According to the consultant, at the time of inspection, the buildings and storage areas on the project site appeared to be well maintained and organized with no evidence of any significant staining, spillage, and/or ponded liquids or uncontained solids. The chemicals stored within containers all appeared to be generally well maintained.[88]

Emergency Response Plans

The project proposes an approximately 605-foot-tall high-rise building. Occupants of the proposed building would contribute to congestion if an emergency evacuation of the downtown area were required. Section 12.202(e)(1) of the San Francisco Fire Code requires that all owners of high-rise buildings (over 75 feet) "shall establish or cause to be established procedures to be followed in case of fire or other emergencies. All such procedures shall be reviewed and approved by the chief of division." Additionally, project construction would have to conform to the provisions of the Building and Fire Codes which require additional life-safety protections for high-rise buildings.

Fire Hazards

San Francisco ensures fire safety primarily through provisions of the Building Code and the Fire Code. Existing buildings are required to meet standards contained in these codes. In addition, the final building plans for any new residential project greater than two units are reviewed by the San Francisco Fire Department (as well as DBI), in order to ensure conformance with these provisions. The proposed project would conform to these standards, which (depending on building type) may also include development of an emergency procedure manual and an exit drill plan. In this way, potential fire hazards (including those associated with hydrant water pressure, and emergency access) would be mitigated during the permit review process.

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[86] Treadwell & Rollo, *Phase I,* p. 11.

[87] Treadwell & Rollo, *Phase I,* pp. 11-12. The 301 Mission Street property's office tenants include Lion Bridge, Tilia Inc., Thomas F. White and Co., Zenith, and Bechtel. The 124 Beale Street property's tenants include Microgear, Young Park, Design Mind, GKO, and DLC. The 129 Fremont Street building is entirely occupied by Computers for Marketing Operation as a temporary office.

[88] *Ibid.*, p. 13. The neighboring properties, observed from the public sidewalk, also showed no apparent signs of chemical releases or leaks.

As a result of implementing the regulations summarized above, potential health and safety issues related to building contamination, soil contamination, emergency procedures, fire hazards and remediation would be reduced to less-than-significant levels. Therefore, these issues do not require further analysis and will not be discussed in the EIR.

13.	**Cultural** - Could the project:	Yes	No	Discussed
a.	Disrupt or adversely affect a prehistoric or historic archaeological site or a property of historic or cultural significance to a community, ethnic or social group; or a paleontological site except as a part of a scientific study?	_	X	X
b.	Conflict with established recreational, educational, religious or scientific uses of the area?	_	X	_
c.	Conflict with the preservation of buildings subject to the provisions of Article 10 or Article 11 of the City Planning Code?	_	X	X

Archaeological Resources

An archival cultural resources evaluation [89] and an archaeological research design[90] were prepared for the project site by an independent consultant. The archival cultural resources evaluation systematically examines the potential for the existence of subsurface cultural resources from the Prehistoric/ Protohistoric period (c. 4000 B.C. - 1775 A.D.), the Spanish, Mexican and Early American periods (1775 -1848), the California Gold Rush period (1849 - 1857), Filling in and Building up of Yerba Buena Cove (1858 - 1886), and the Late Nineteenth Century (1887 - 1906). The archaeological research design establishes a detailed approach to determining the significance of the archaeological property types[91] expected to be potentially present and the procedures to be followed in pre-construction testing, data recovery, monitoring construction activities, treatment of artifacts and features, and recording and reporting data.

The cultural resources evaluation's review of available archival sources suggests that there is a slight possibility that prehistoric/protohistoric archeological remains may exist within the confines of the project site, [92] and that there is minimal likelihood of recovering cultural resources from the Spanish, Mexican and Early American periods.[93] During these periods the project site lay entirely submerged beneath the shallow waters of Yerba Buena Cove. The

[89] Archeo-Tec Inc., *Archival Cultural Resources Evaluation of the Proposed 301 Mission Street Development Project*, December 2001. This report is on file with the Planning Department, 1660 Mission Street, San Francisco, and is available for public review as part of the project file.

[90] Archeo-Tec Inc., *Archaeological Research Design*, December 2001(Revised March 8, 2002) .

[91] Property types in this context are classes of archaeological resources that share important characteristics.

[92] *Archival Cultural Resources Evaluation of the Proposed 301 Mission Street Development Project*, p.40.

[93] *Ibid.*

cultural resources evaluation concludes that it is unlikely that cultural resources from these periods would be encountered, although their existence cannot be ruled out.[94]

According to the cultural resources evaluation, the first development of the project area began in the mid-1850's with the filling of Yerba Buena Cove with dune sand, rocks, rubbish, rubble. During the mid-1980's Archeo-Tec conducted a monitoring/data recovery program in connection with construction of 135 Main Street, one block to the east, which resulted in the recovery of an extensive assemblage of cultural material from the early-to-mid 1850's to the end of the Nineteenth Century that had been discarded as landfill. Patterns of Nineteenth Century landfill activity at 135 Main Street closely resemble those of the project site. [95] By 1869 the project site and surrounding area had been entirely reclaimed from San Francisco Bay. By the mid-1870's until the close of the Nineteenth Century the project site was fully developed and occupied by a variety of industrial and commercial enterprises. No major alterations to the foundations or property footprints of the buildings of the study block occurred until after the block was consumed by the fire that followed the 1906 Earthquake.

The cultural resources evaluation concludes that, based upon the filling and grading activities of the 1850's and the continuous use of structures at the project site from the late 1850's until the Great Earthquake and Fire of 1906, there is a reasonable probability that excavation could disrupt Gold Rush era and later nineteenth century archeological resources.[96] Additionally, remains of the storeships the *Callao* and the *Byron* have been recorded in close proximity to the project site, although their exact locations have not been precisely determined.[97]

The research design identifies the types of historical archeological artifacts and features that are expected to be present within the confines of the project site under the following five property types: "refuse," "architecture," "landfill and landscape," " urban infrastructure, and industrial processes."[98] The research design identifies three historical archaeological research themes that are likely to be addressed by the expected properties: "ethnicity and boundary maintenance;" "Victorianism and urban geography;" and "industrialization and technology."[99] The research design also identifies the types of prehistoric archaeological resources that are expected to be present within the project site (if prehistoric resources should be encountered) under four property types: "midden sites", "isolated burials and features", "lithic scatters", and "isolated artifacts".

The research design assesses the potential significance of expected archaeological resources in terms of criteria of eligibility of the resource for the National Register of Historic Places and the California Register of Historical Resources (NRHP/CRHR) (particularly, Criterion D, the likelihood that the property may yield "information important in prehistory and history"). Artifacts and features rated "high" are considered to possess a greater potential to address the relevant research themes identified in the research design, and are therefore most likely to be

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[94] *Ibid.*, pp.13, 20.

[95] *Ibid.*, pp. 38-39.

[96] *Ibid.*, p.40

[97] *Ibid.*, pp. 29-30. An 1859 U.S. Coast Survey map depicts the outline of a ship near the modern intersection of Mission and Beale Streets.

[98] *Archaeological Research Design*, pp.13-16

[99] *Ibid.*, pp.16-22

eligible for inclusion in the National and California Registers under Criterion D. Artifacts and features rated "high" for this project are as follows: under the "refuse" category are refuse filled features (such as pits, privies and wells), landfill, and maritime remnants; under the "architecture" category are remnants of maritime resources and saloons; and under the "industrial processes" category are remnants of shipbuilding and woodworking activities.[100]

The proposed project would include excavation to a depth of 40 feet below grade to accommodate the foundations and subsurface parking facilities. Based upon the archaeological cultural resources evaluation, there is a very low probability that prehistoric resources, a moderate probability that buried ships, and a moderate to high probability that historical archaeological resources associated with the Gold Rush Period through the latter 19th Century may be present within the project site and that these resources would potentially be eligible for the NRHP/CRHR and thus, be 'historical resources under CEQA. The cultural resources evaluation concluded that the proposed project could adversely affect archaeological resources expected to be present within the project site.

The project includes a mitigation measure (see Mitigation Measure 3, pp. 49-50) that would reduce the potential impact to cultural resources to a less-than-significant level.

Historic Architectural Resources

The project site is occupied by three buildings (see Figure 4; Existing Buildings on the Project Site). In 1996 the buildings were surveyed for their historic significance in a Historic Properties Survey Report for the *CalTrain San Francisco Downtown Extension Project.* [101] The report was prepared as part of compliance with federal review under Section 106 of the National Historic Preservation Act.

The six-story 301 Mission Street office building, historically known as the W.P. Fuller & Company Building, occupies the whole of Lot 1 in the northeast corner of the project site.[102] The eastern half is a fireproof steel frame building with brick curtain walls, designed by Albert Pissis[103] and built in 1908. According to the Historic Properties Survey report, Albert Pissis began his career as a draftsman for William Mooser I, and then attended the Ecole des Beaux Arts in Paris in the 1870's. His competition-winning design for the Hibernia Bank building (1889), with partner W.P. Moore, elevated him to the highest rank of San Francisco architects. He remains well known for his classical designs, including the Flood Building (1904), the

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[100] *Ibid.*, pp.23-24.

[101] See McGrew/Architects, Patrick McGrew's letter to Mark Farrar, Mission Street Development Partners, September 17, 2001, p. 2. Patrick McGrew's letter. See also Michael Corbett, Dames and Moore, Historic Properties Survey Report for the *Caltrain San Francisco Downtown Extension Project*, 1996. The Patrick McGrew letter and relevant portions of the Historic Properties Survey Report, including pages for 301 Mission Street, 124 Beale Street, and 129 Fremont Street, are on file with the Planning Department, 1660 Mission Street, San Francisco, and are available for public review as part of the project file.

[102] Michael Corbett, Dames and Moore, Historic Properties Survey Report for the *Caltrain San Francisco Downtown Extension Project*, 1996, 301 Mission Street, pp.1-4. A previous building on the same site was completed in February of 1906 and was destroyed in April of that year by the earthquake and fire.

[103] *Ibid.*

A. 301 MISSION STREET

B. 124 BEALE STREET

C. 129 FREMONT STREET

SOURCE: Turnstone Consulting

2001.0792E: 301 MISSION STREET

FIGURE 4: EXISTING BUILDINGS ON THE PROJECT SITE

Emporium (1896), the White House Dept. Store (1908), and the Hibernia Bank, all extant. The western half is a fireproof, reinforced concrete structure with brick cladding, and tile partition walls with an elevator penthouse; its sixth story spans both halves of the building. It was designed by George Applegarth[104] and built in 1923. George Applegarth trained at the Ecole des Beaux Arts and opened his office in San Francisco in 1906 or 1907. He is considered an important architect for his classical designs, such as the A.B. Spreckels mansion (1913) and the Palace of the Legion of Honor in Lincoln Park (1920's). He also pioneered in the use of large amounts of glass in the facades of downtown office buildings. He worked until his death in January 1972.

According to the Historic Properties Survey Report, the design of the 301 Mission Street Building is a three-part vertical block with an attic. It has a skeletal articulation at the facades and ornamentation derived from Renaissance and Baroque sources extended in terra cotta and pressed metal. With the 1923 addition, the elevator penthouse was given a tiled hip roof and arches, like the Merchant's Exchange and numerous other prestigious San Francisco buildings. The entrance vestibule is framed by a column order. Among the numerous alterations since the 1930's, those with the biggest impact on the appearance where the replacement of all original wood windows in 1969.[105]

The 301 Mission Street building was the home of the W.P. Fuller Company, a paint manufacturer,[106] from 1908 through the 1950's This building contained not only the main offices for W.P. Fuller and Company, but the paint manufacturing plant, a warehouse, and a shipping department.[107] Fuller remained in this building at least through 1959.[108]

The Historic Properties Survey Report indicates that the 301 Mission Street building possesses significance both for its associations with the Fuller company and for its architectural design by two leading San Francisco architects.[109] However, according to the report, it has suffered a loss in integrity with replacement of all of the original windows (1969) and the Historic Properties Survey Report concludes that the building appears ineligible for the National Register of Historic Places (NRHP), due to a loss of integrity.[110]

The six-story 124 Beale Street office building, historically known as the Dry Goods Warehouse, occupies the irregular L-shaped Lot 17 at the southeast corner of the site (see Figure 4). It was

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[104] *Ibid.*

[105] *Ibid.*

[106] *Ibid.* The company was founded in 1849 by William Parmer Fuller, who, after working briefly as a miner, opened his painting and paperhanging business in Sacramento in August of that year. In about 1861, Fuller expanded , opening a store in San Francisco and importing paints, oils, and glass from the east coast and Europe. In 1868, Fuller merged with William F Whittier, the owner of a similar business. The combined firm was one of many such dealers in San Francisco and was perhaps the largest and best known in the city. In 1894, Whittier retired, and the firm became W.P. Fuller and Company.

[107] *Ibid.* The W.P. Fuller Company company also built two other buildings to house their operations. The glass mirror works at 1010 Battery Street (1905) and the warehouse at 340-360 Townsend (1906) still stand.

[108] *Ibid.* Today, the business is known as the Fuller-O'Brien Paint Company.

[109] *Ibid.*

[110] *Ibid.*

built in 1930 as a warehouse and has been converted to office use.[111] The architect is not known. A truck dock entrance is on Beale Street. It is a fireproof reinforced concrete building with six-inch walls, a flat roof, a central fire escape. Most of the building's windows are steel sash with some aluminum replacement windows on the south side. The facade is a two-part vertical composition with recessed spandrel panels and a concrete cornice; it has stucco finish on the side fronting Beale Street. The building lobby finishes have been remodeled.

According to the 1996 Historic Properties Survey Report, 124 Beale Street lacks significance and does not appear eligible for the NRHP under Criterion C for listing on the NRHP.[112] The 124 Beale Street building is a reinforced concrete dry goods warehouse with a very simple stucco facade in a standard two-part composition. It is typical of many San Francisco buildings of this type, period, and method of construction. The report also concludes that 124 Beale Street lacks significance under Criteria A and B for listing on the NRHP.[113] Historically, 124 Beale Street is associated with an industry that was established in the Gold Rush period and flourished in San Francisco until after World War II when warehousing of all sorts began moving out of the city. This building is a later, representative manifestation of the industry, built by a real estate developer as an investment. The building has no known association with significant persons or events. In summary, the report concludes that the building lacks significance and does not appear eligible for the NRHP. [114]

The 129 Fremont Street building, historically known as Walton N. Moore Dry Goods Warehouse, occupies the southwest corner of Lot 17. (See Figure 4.) It is a reinforced concrete structure with an open loft plan, a crib floor,[115] a gable roof, built in 1929. The architect is not known. The second floor and roof trusses are supported by steel columns along the insides of the walls. The second floor is further supported by a central row of 12-inch square wood posts and massive beams. The building has a central double door and one side door near the north end; it has no windows. As stated in the Historic Properties Survey Report, the front facade is clad in green extruded ceramic veneer above a black marble base; it may have been remodeled in the late 1930s or the 1940s. According to the survey report, in design this is a vault with barely identifiable connections to the Moderne architectural style.

According to the survey report. the origins of this building remain unclear.[116] This building, or a similar one, stood on this site and was used as a foundry and blacksmith shop in 1913.[117] The

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[111] Historic Properties Survey Report for the *Caltrain San Francisco Downtown Extension Project*, 1996, 124 Beale Street, pp. 1-4.

[112] Criterion C for listing on the NRHP includes resources that "embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction."

[113] Criterion A for listing on the NRHP includes resources that "are associated with events that have made a significant contribution to the patterns of history." Criterion B includes resources the "are associated with the lives of persons significant in our past."

[114] Historic Properties Survey Report for the *Caltrain San Francisco Downtown Extension Project*, 1996, 124 Beale Street, pp. 1-4.

[115] The crib floor consists of massive wood planks estimated to be about two inch by twelve feet laid on their sides rather than flat. Historic Properties Survey Report for the *Caltrain San Francisco Downtown Extension Project*, 1996, 129 Fremont Street, pp. 1-4.

[116] *Ibid.*

[117] *Ibid.*, 129 Fremont Street, p. 2.

occupants of the site in 1915 were William T. Campbell, horseshoer, and Price Brothers, draymen. Interim uses remain unknown. The Realdex gives a construction date of 1922 to the building, but supporting evidence is lacking. In 1945, the Walton N. Moore Dry Goods Company, a wholesale business, purchased this building and used it as a warehouse for their adjacent showroom at 345 Mission Street. The history of this building appears to be associated with Walton Moore Dry Goods and as such belongs to a common pattern of warehouses for local establishments. As structure, it is an unusually built building, especially the flooring. The purpose of this is not clear. The Historic Properties Survey Report concludes that, while a more complete evaluation of the 129 Fremont building could be made with more information about both its history and architecture, at present the building lacks significance and appears ineligible for the NRHP.[118]

The table below summarizes the status of the three existing buildings under historic registers, designations and surveys.[119]

Table 1: Summary of Architectural/Historic Status of Existing Buildings

	301 Mission St.	124 Beale St	129 Fremont
National Register[1]	6Y	6Y	6Y
Planning Code, Art. 10	Not Designated	Not Designated	Not Designated
Planning Code Art. 11	Unrated	Unrated	Unrated
Here Today	Not Included	Not Included	Not Included
Citywide Survey	Not Included	Not Included	Not Included
Splendid Survivors	Unrated[2]	Unrated	Unrated
California Register	Not Listed[3]	Not Listed	Not Listed

Notes:

[1] The Historic Properties Survey Report for the *Caltrain San Francisco Downtown Extension Project* recommended a "6Z" rating for the above-mentioned properties. These buildings were eventually adopted through a consensus determination of a federal agency and the State Historic Preservation Officer as a National Register Status Code of "6Y". Both "6Z" and "6Y" ratings are considered ineligible for listing in the National Register. Source: Office of Historic Preservation, *Instructions for Recording Historical Resources,* March 1995, Appendix 2, NRHP Status Codes.

[2] In an unpublished 1983 manuscript entitled: " Splendid Extended" (which included South of Market buildings), Heritage rated the 301 Mission Street building a "B". Details of this rating are available from Heritage. This survey placed a high value on the history of the building as one-time headquarters of the W.P. Fuller Company. This survey did not address the extent of alterations to the building; it valued the building's historic context, which has now been altered beyond recognition, according to Patrick McGrew, historic resource consultant. Most early Twentieth Century buildings in the project vicinity have been demolished or replaced. Those that remain are too few in number and too dispersed to define the area's visual context, according to the consultant.

[3] Because of the "6Y" rating under the National Register, the building does not satisfy the eligibility requirements for listing on the California Register.

Source: Turnstone Consulting and McGrew Architects

[118] *Ibid.*

[119] Patrick McGrew, McGrew Architects, Historic Building Registry Review for 301 Mission, 124 Beale Street, and 129 Fremont Street, September 17, 2001. This report is on file with the Planning Department, 1660 Mission Street, San Francisco, and available for public review as part of the project file.

No designated landmarks or buildings designated Category I-IV under Article 11 of the Planning Code are on the site. No buildings on the site are located in a Conservation District. Alteration and/or demolition of unrated (Category V) buildings that are not included within the boundaries of a Conservation District is essentially exempt from Landmarks Board review. While the Historic Properties Survey Report concludes that a more complete evaluation of the 129 Fremont Street building could be made, at present that building and all other site buildings have been determined ineligible for the National Register and the California Register.

Thus, the existing buildings on the project site are not historic resources under CEQA. Their demolition, therefore, would not have a significant impact on historic architectural resources, and no further analysis in the EIR is required.

OTHER - Could the project:	Yes	No	Discussed
Require approval and/or permits from City Departments other than the Planning Department or the Department of Building Inspection, or from regional, state, or federal agencies?	X	_	X

A list of approvals and permits necessary for the project is presented in the Compatibility with Existing Zoning and Plans discussion above on pp. 7-10.

MITIGATION MEASURES	Yes	No	N/A	Discussed
1. Could the project have significant effects if mitigation measures are not included in the project?	X	_	_	X
2. Are all mitigation measures necessary to eliminate significant effects included in the project?	_	X	_	X

Mitigation Measure 1: Noise

It is likely that pile driving would be required for this project. Therefore the project sponsor would require construction contractors to predrill holes to the maximum depth feasible based on soil conditions. Contractors would be required to use construction equipment with state-of-the-art noise shielding and muffling devices. The project sponsor would also require that contractors schedule pile driving activity for times of the day that would be consistent with the San Francisco Noise Ordinance.

Mitigation Measure 2: Construction Air Quality

To reduce particulate emissions, the project sponsor would require the contractor(s) to spray the site with water during demolition, excavation, and construction activities; spray unpaved construction areas with water at least twice per day; cover stockpiles of soil, sand, and other material; cover trucks hauling debris, soils, sand or other such material; and sweep surrounding streets during demolition, excavation, and construction at least once per day. Ordinance 175-91, passed by the Board of Supervisors on May 6, 1991, requires that non-potable water be used for dust control activities.

Therefore, the project sponsor would require that contractor(s) obtain reclaimed water from the Clean Water Program for this purpose. The project sponsor would require the project contractor(s) to maintain and operate construction equipment so as to minimize exhaust emissions of particulates and other pollutants, by such means as a prohibition on idling motors when equipment is not in use or when trucks are waiting in queues, and implementation of specific maintenance programs to reduce emissions for equipment that would be in frequent use for much of the construction period.

Mitigation Measure 3: Archaeological Resources

Given the location and depth of excavation proposed, and the likelihood that archaeological resources would be encountered on the project site, the sponsor has agreed to retain the services of an archaeologist. The archaeologist would carry out a pre-excavation testing program to better determine the probability of finding cultural and historical remains. The testing program would use a series of mechanical, exploratory borings or trenches and/or other testing methods determined by the archaeologist to be appropriate.

If, after testing, the archaeologist determines that no further investigations or precautions are necessary to safeguard potentially significant archaeological resources, the archaeologist would submit a written report to the Environmental Review Officer (ERO), with a copy to the project sponsor. If the archaeologist determines that further investigations or precautions are necessary, he/she shall consult with the ERO and they shall jointly determine what additional procedures are necessary to minimize potential effects on archaeological resources.

These additional mitigation measures would be implemented by the project sponsor and might include a program of on-site monitoring of all site excavation, during which the archaeologist would record observations in a permanent log. The monitoring program, whether or not there are finds of significance, would result in a written report to be submitted first and directly to the ERO, with a copy to the project sponsor. During the monitoring program, the project sponsor would designate one individual on site as his/her representative. This representative would have the authority to suspend work at the site to give the archaeologist time to investigate and evaluate archaeological resources should they be encountered.

Should evidence of cultural resources of potential significance be found during the monitoring program, the archaeologist would immediately notify the ERO, and the project sponsor would halt any activities which the archaeologist and the ERO jointly determine could damage such cultural resources. Ground disturbing activities which might damage cultural resources would be suspended for a total maximum of four weeks over the course of construction.

After notifying the ERO, the archaeologist would prepare a written report to be submitted first and directly to the ERO, with a copy to the project sponsor, which would contain an assessment of the potential significance of the find and recommendations for what measures should be implemented to minimize potential effects on archaeological resources. Based on this report, the ERO would recommend specific additional mitigation measures to be implemented by the project sponsor. These additional mitigation measures might include a site security program, additional on-site investigations by the archaeologist, and/or documentation, preservation, and recovery of cultural material.

Finally, the archaeologist would prepare a report documenting the cultural resources that were discovered, an evaluation as to their significance, and a description as to how any archaeological testing, exploration and/or recovery program was conducted.

Copies of all draft reports prepared according to this mitigation measure would be sent first and directly to the ERO for review. Following approval by the ERO, copies of the final report(s) would be sent by the archaeologist directly to the President of the Landmarks Preservation Advisory Board and the California Historical Resources Information System, Northwest Information Center. Three copies of the final archaeology report(s) shall be submitted to the

Major Environmental Analysis Section of the Planning Department, accompanied by copies of the transmittals documenting its distribution to the President of the Landmarks Preservation Advisory Board and the California Historical Resources Information System, Northwest Information Center.

ALTERNATIVES

The EIR will discuss several alternatives to the proposed project that would reduce or eliminate significant environmental effects. The alternatives will include the following:

1. No Project. The No Project Alternative is required by CEQA to be discussed in the EIR. The existing buildings would remain on the project site and the northwest corner would remain vacant.

2. Alternative Requiring No Allowable Exceptions to the Planning Code. This alternative would not include a height extension, would meet "S" bulk district requirements, and would have no exceptions for facade width and floor plate size above 350 feet in height. It would have two subsurface parking levels, rather than three.

3. Revised Project Program. This alternative would revise the allocation of floor area among various uses in the project. For example, as the site is in the C-3-O (Downtown Office) use district, office space could be increased from 132,600 gsf with the project to about 300,000 gsf. Residential floor area could be reduced; such an alternative would have about 183 residential units, compared to 271 units with the proposed project. This alternative could also have the same 136-unit extended-stay hotel as the proposed project.

MANDATORY FINDINGS OF SIGNIFICANCE	Yes	No	Discussed
1. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or pre-history?	_	X	_
2. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	_	X	_
3. Does the project have possible environmental effects which are individually limited, but cumulatively considerable? (Analyze in the light of past projects, other current projects, and probable future projects.)	X	_	X
4. Would the project cause substantial adverse effects on human beings, either directly or indirectly?	_	X	_

The project would contribute to cumulative transportation (traffic and transit), and air quality impacts in the Bay Area. These impacts will be analyzed in the EIR.

ON THE BASIS OF THIS INITIAL STUDY:

_ I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

___ I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because the mitigation measures in the discussion have been included as part of the proposed project. A NEGATIVE DECLARATION will be prepared.

_X_ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

DATE: May 10, 2002

Paul Maltzer
Environmental Review Officer
for
Gerald G. Green
Director of Planning

APPENDIX B

DETERMINATION OF COMPLIANCE WITH PLANNING CODE SECTION 295: SHADOW ON RECREATION AND PARK COMMISSION PROPERTY

PLANNING DEPARTMENT

City and County of San Francisco 1660 Mission Street, 5th Floor San Francisco, CA 94103

Telephone: (415) 558-6378 Fax: (415) 558-6409 Website: http://www.ci.sf.ca.us/planning

July 15, 2002

Mark Farrar
Mission Street Development Partners, LLC
720 Market Street, 9th Floor
San Francisco, CA 94102

RE: Case No. 2001.0792K
301 Mission Street
Shadow Analysis

Dear Mr. Farrar:

The Planning Department has reviewed the above-referenced project for compliance with Section 295 of the Planning Code, which restricts structures over 40 feet in height from casting new shadow on properties under the jurisdiction of the Recreation and Park Department.

Following an initial shadow analysis, it was determined that the proposed project had the potential to cast new shadow on the following parks:

(1) Chinese Playground
(2) Embarcadero Plaza I (Justin Herman Plaza)
(3) Embarcadero Plaza II
(4) Maritime Plaza
(5) Portsmouth Square
(6) St. Mary's Square
(7) Union Square

Based on new information provided by your consultant, the Department has determined that the proposed project will not impact any of these parks or any other properties protected by Section 295. The Department hereby concludes that the proposed project complies with the provisions of Section 295 of the Planning Code.

If you have any questions, please contact me at (415) 558-6396.

Sincerely,

Michael Li

Michael Li

APPENDIX C

WIND TUNNEL ANALYSIS

WIND TUNNEL ANALYSIS FOR THE PROPOSED 301 MISSION STREET PROJECT, SAN FRANCISCO

Prepared for:

Turnstone Consulting
330 Townsend Street, Suite 216
San Francisco, CA. 94107

October 2002

Donald Ballanti *Certified Consulting Meteorologist*

1424 Scott Street / El Cerrito, California 94530 / (510) 234-6087 / Fax: (510) 232-7752

I. INTRODUCTION

The proposed project site would be bounded by Fremont Street, Mission Street, Beale Street and the Transbay Terminal. The project would be a mixed-use development consisting of a high-rise tower and low-rise office building connected by an indoor park. The high-rise tower would occupy the Mission/Fremont corner of the site. It would be 605 feet in height and consist of hotel, apartment and condominium uses. The low-rise tower(126 feet tall plus penthouse) would occupy the Mission/Beale corner of the site and would provide office space. The space between the two towers would be used as a three-story glassed-in atrium.

The alternative design had an identical footprint to the proposed project; the height of the high-rise hotel/apartment/condominium tower was reduced to 550 feet.

The results of five scenarios are reported here:

(1) Existing conditions. Several buildings currently under construction or approved were included in the model. These include 554 Mission, Foundry Square, and 555 Mission.

(2) Existing conditions plus the Proposed Project.

(3) Existing conditions plus the Alternative Design.

(4) Existing conditions plus the Proposed Project plus cumulative development. Cumulative development consisted of the Full Buildout alternative of the Transbay Terminal Redevelopment Area.

(5) Existing conditions plus the Alternative Design plus cumulative development.

Wind tunnel studies were performed to investigate the pedestrian wind environment around the project site. Pedestrian-level wind speeds were measured at selected points for the existing site and with the addition of the Proposed Project and Alternative Design. Two cumulative runs were also made. The wind tunnel data was used to quantify wind impacts in public spaces near the site and predict the acceptability of wind conditions near the site. Interior rooftop measurements were also made to provide information on the usability of proposed outdoor spaces within the project.

II. METHODOLOGY

Wind Tunnel Facilities

The scale model was then tested in a Boundary Layer wind tunnel at the University of California, Davis, under the direction of Dr. Bruce White. Figure 1 is a diagram of the facility. These tests, however, were performed independent of the University..

Model and Boundary Layer

A 1 inch equals 50 feet scale model of the project site and surrounding several blocks was constructed in order to simulate the project and its existing context. Wind obstructions located further away from the project site were considered part of the general roughness of the site, and were modeled as part of the characteristic atmospheric boundary layer in the wind tunnel.

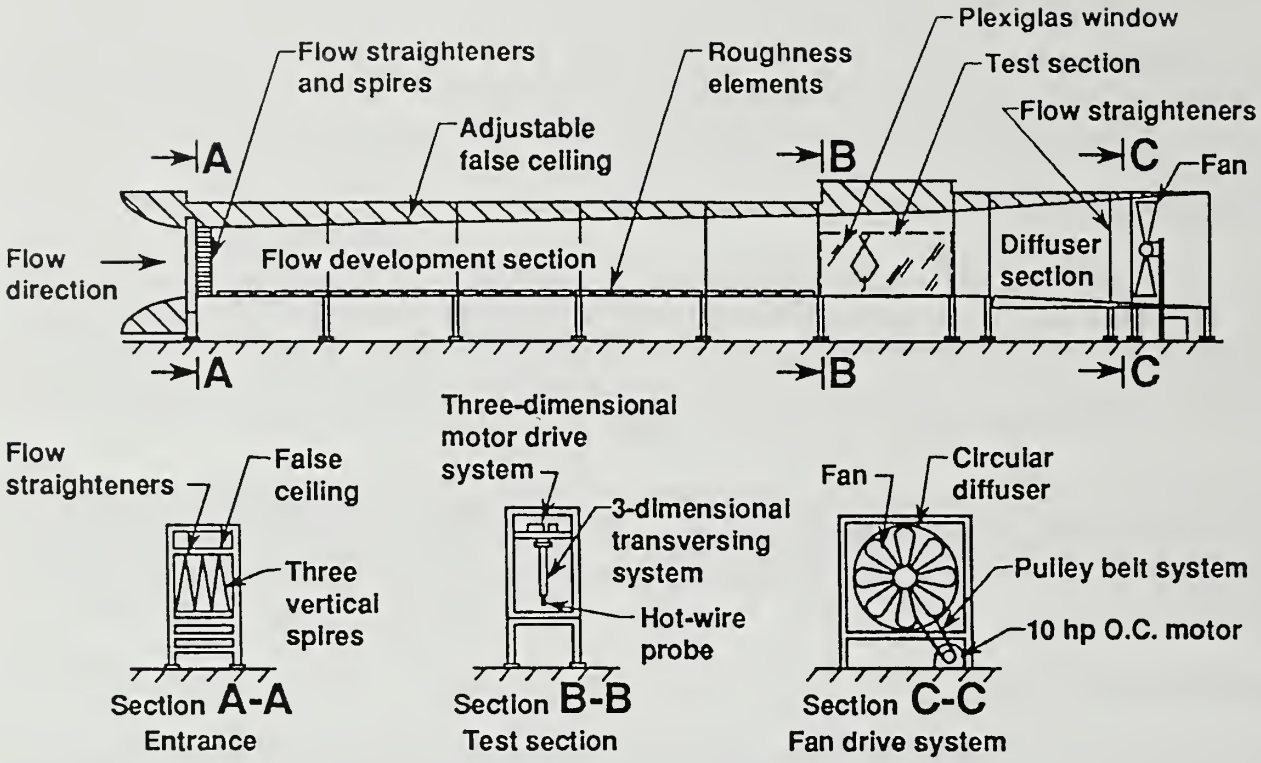
Simulation of the boundary layer in the natural wind is achieved by turbulence generators placed upwind of the test section. This allows for adjustment in the wind characteristics to provide for different model scales and varying terrain upwind of the project.

Measurement Protocols

The velocity measurements in this study were made with a hot wire anemometer. A total of 36 velocity measurement locations were selected for this study located along sidewalk areas adjacent to and near the project site for all runs. An additional 5 measurements were made in the rooftop space to be created on the office low-rise tower.

In accordance with the San Francisco Wind Ordinance methodology for wind tunnel tests the model was tested for four wind directions: northwest, west-northwest, west and west-southwest.

Figure 1: UC Davis Boundary Layer Wind Tunnel



III. CRITERIA AND HISTORICAL WIND RECORDS

Wind conditions partly determine pedestrian comfort on sidewalks and in other public areas. In downtown areas, high-rise buildings can redirect wind flows around buildings and divert winds downward to street level; each can result increased wind speed and turbulence at street level.

The comfort of pedestrians varies under different conditions of sun exposure, temperature, clothing, and wind speed. Winds up to four MPH have no noticeable effect on pedestrian comfort. With winds from four to eight MPH, wind is felt on the face. Winds from 8 to 13 MPH will disturb hair, cause clothing to flap, and extend a light flag mounted on a pole. For winds from 19 to 26 MPH, the force of the wind will be felt on the body. At 26 MPH to 34 MPH wind, umbrellas are used with difficulty, hair is blown straight, there is difficulty in walking steadily, and wind noise is unpleasant. Winds over 34 MPH increase difficulty with balance and gusts can blow people over.[1]

The City of San Francisco Planning Code establishes wind criteria for the Rincon Hill Special Use District under Section 249.1 of the Planning Code. Section 249.1 of the Planning Code sets comfort levels of 7 MPH equivalent wind speed for public seating areas and 11 MPH equivalent wind speed for areas of substantial pedestrian use. In addition to comfort criteria San Francisco Planning Code establishes a wind hazard criterion. The hazard criterion is set at a hourly averaged wind speed of 26 MPH, which is not to be exceeded more than once during a year.

Predictions of wind speed are based upon historical wind records from the U.S. Weather Bureau weather station atop the old Federal Building at 50 United Nations Plaza during the years 1945-1950. This data base, comprised of 32,795 hourly observations is of sufficient length to provide a reliable estimate of future climatic conditions in San Francisco.

Table 1 shows that average wind speeds are greatest in the summer and least in the fall. Winds also exhibit a diurnal variation with the strongest winds occurring in the afternoon, and lightest winds occurring in the early morning.

Winds in San Francisco are most frequently from the west to northwest directions, reflecting the persistence of sea breezes. Wind direction is most variable in the winter. The approach of winter storms often results in southerly winds. Although not as frequent as westerly winds, these southerly winds are often strong. The strongest winds in San Francisco are typically from the south during the approach of a winter storm.

Table 1: Seasonal Wind Direction Frequency In Percent and Average Speed in Knots[2]

Direction	January		April		July		October		Annual	
	Freq.	Speed	Freq.	Speed	Freq.	Speed	Freq.	Speed	Freq.	Speed
N	12.5	7.9	2.2	11.0	0.3	6.0	3.3	6.6	5.0	7.2
NNE	1.3	5.6	0.7	6.1	0.3	6.8	0.7	6.6	0.8	6.0
NE	4.5	5.3	1.3	4.7	1.1	7.4	2.2	5.8	1.9	5.6
ENE	1.4	6.3	0.6	4.8	0.2	5.1	0.8	5.1	0.8	5.6
E	11.9	4.8	2.6	4.5	0.1	3.9	4.8	4.5	4.8	5.0
ESE	2.1	6.4	0.3	5.2	0.1	2.5	0.6	5.8	0.8	5.8
SE	9.1	6.4	2.4	7.8	0.2	5.0	3.7	6.6	4.2	6.8
SSE	2.8	5.6	0.3	3.8	0.1	3.0	1.3	9.0	1.2	6.4
S	6.7	5.0	4.2	7.1	1.1	4.9	4.5	7.5	4.1	6.4
SSW	1.0	4.8	0.4	4.1	0.1	3.0	1.7	12.8	0.9	8.6
SW	4.5	8.0	7.7	9.2	15.6	10.1	7.8	9.1	9.3	9.3
WSW	1.0	5.9	1.7	7.7	1.2	8.1	2.8	8.8	2.4	8.6
W	13.2	7.2	43.0	10.9	53.0	13.1	34.6	9.1	35.7	10.9
WNW	7.5	11.1	20.7	14.1	14.9	14.5	15.2	10.9	13.8	12.7
NW	11.5	7.7	9.3	10.7	10.7	11.4	10.8	8.5	10.0	9.7
NNW	1.2	5.7	0.6	10.8	0.6	8.5	0.5	7.5	0.7	8.3
Calm	7.7	---	2.1	---	0.3	---	4.6	---	3.7	---

IV. ANALYSIS

The San Francisco wind code is based on wind acceptability criteria defined in terms of "equivalent wind speed" (EWS). EWS denotes the mean hourly wind speed adjusted to account for the expected turbulence intensity or gustiness at the site. The wind speed limits in the code were developed with an inherent turbulence intensity of 15%. When the measured turbulence intensity at a point is greater than 15%, the equivalent wind speed is calculated by multiplying the mean velocity at the point by a weighting factor according to the following formula:

EWS = Vm (2*TI + 0.7) where:

Vm = mean pedestrian-level wind speed
TI = turbulence intensity

For measured turbulence intensities less than 15%, EWS is taken to be equal to Vm.

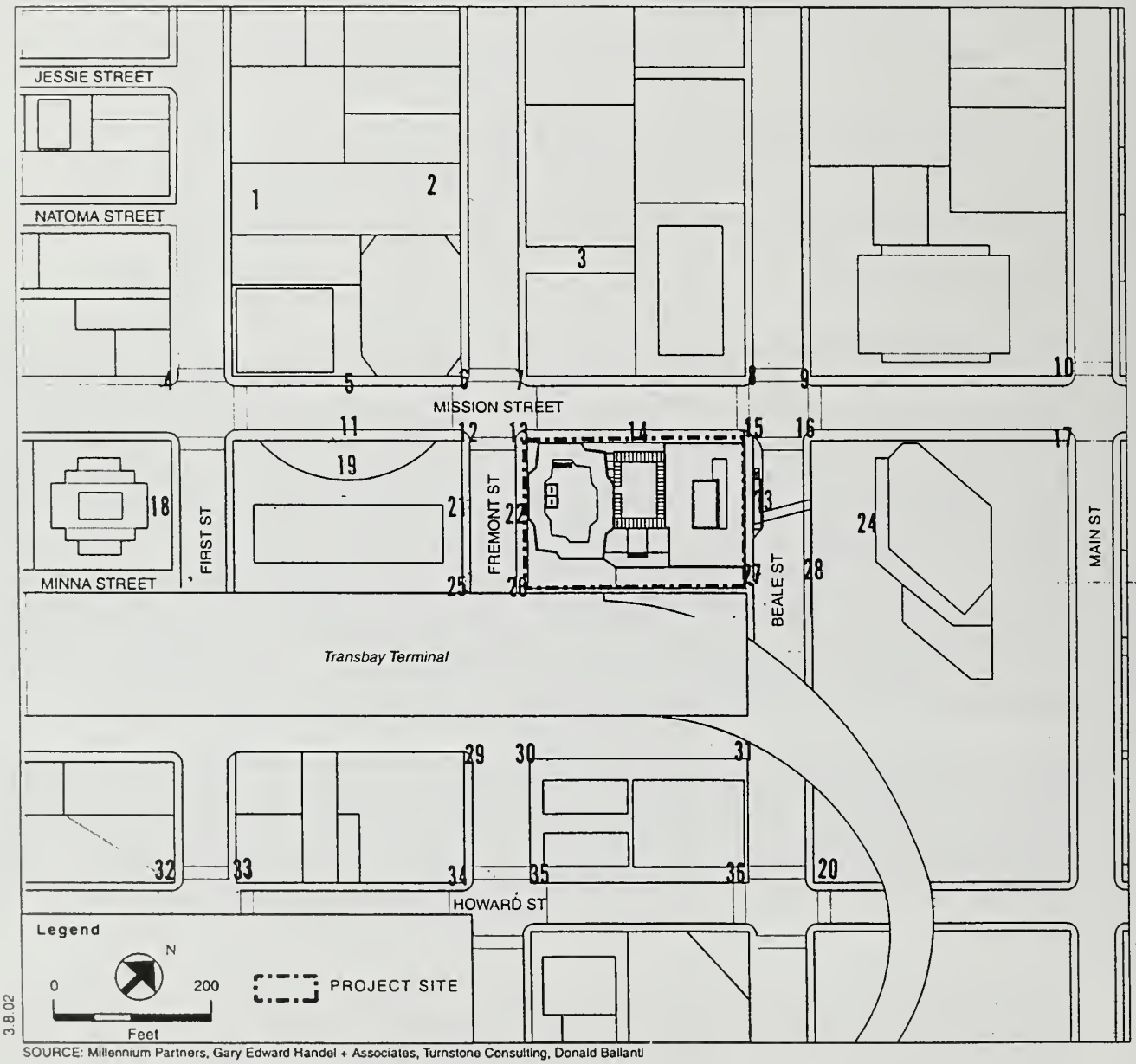
Pedestrian Locations

Each wind-tunnel measurement results in a ratio that relates the speed of ground-level wind to the speed at the reference elevation, in this case the height of the Old San Francisco Federal Building. The frequency with which a particular wind velocity is exceeded at any test location is then calculated by using the measured wind-tunnel ratio and a specified ground speed to determine the corresponding reference wind speed for each direction. In general, this gives different reference speeds for each major directional component of the wind. The wind data for San Francisco are then used to calculate the percentage of the time that the specific ground-level wind speed is exceeded for each directional component. The sum of these is the total percentage of time that the specified ground-level wind speed is exceeded. A computer is used to calculate the total percentages for a series of wind speeds until the speed exceeded ten percent of the time is found, for each location.

The mean wind speeds are compared to the comfort criterion of 11 mph for pedestrian areas, not to be exceeded more than 10 percent of the time. Separate calculations evaluate compliance with the hazard criterion. The wind data observed at the Old San Francisco Federal Building are not full hour average speeds as specified by the Code, so it is necessary to adjust the equivalent speeds to obtain the hourly average of 26 mph.[3]

The wind speed that would be exceeded 10% of the time at each measuring location is shown in Table 2. The locations of measurement points are shown in Figure 2 and 3. Sidewalks are pedestrian locations where the 11 MPH comfort criterion is applicable. For nearby public plazas or sitting areas the more stringent 7 MPH comfort criterion applies, and the sitting area criterion has been applied to rooftop outdoor space within the project to evaluate the usability of that space.

Figure 2: Ground-Level Measurement Locations



SOURCE: Millennium Partners, Gary Edward Handel + Associates, Turnstone Consulting, Donald Ballanti

Figure 3: Rooftop Measurement Locations

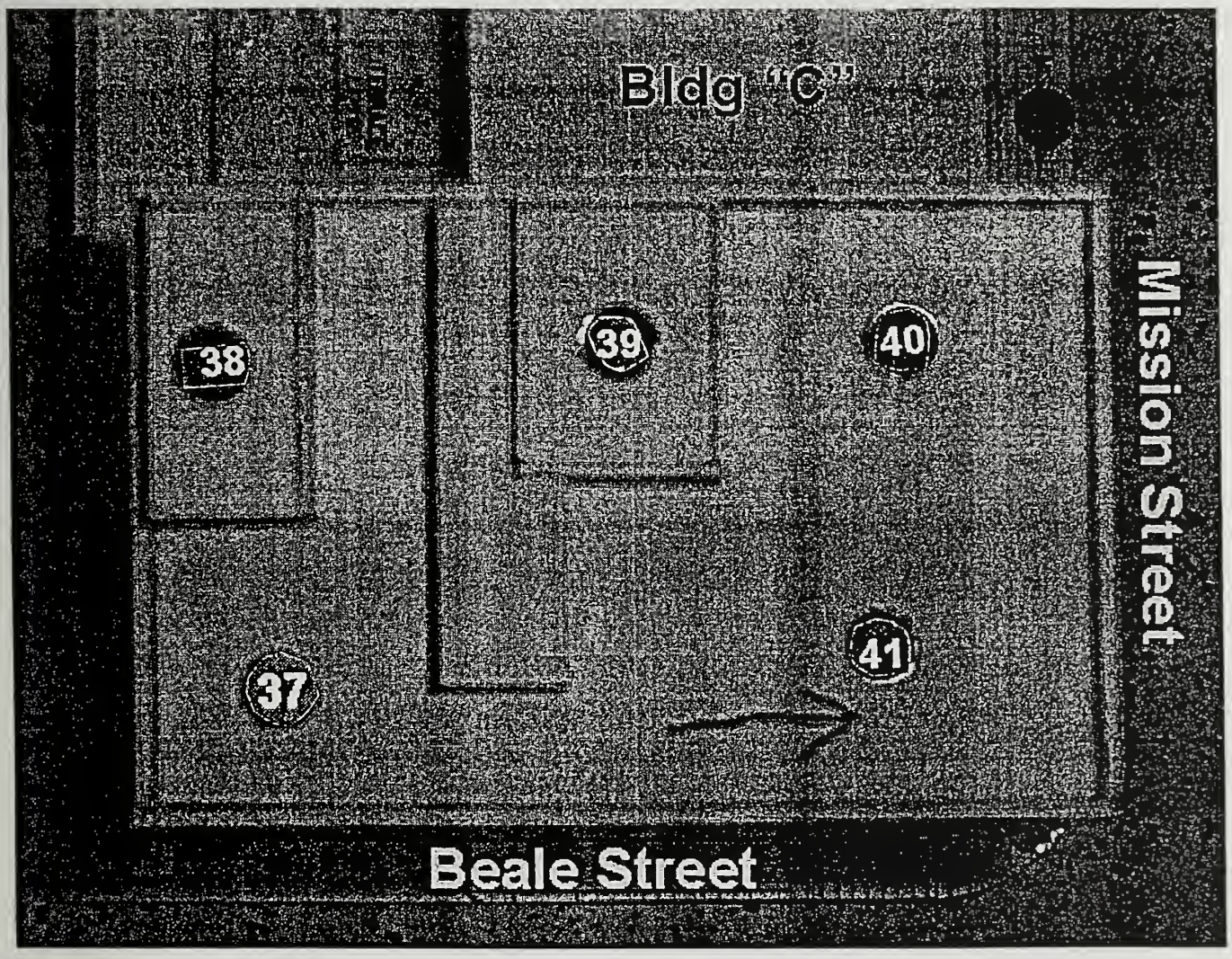


Table 2: Wind Speed Exceeded 10% of the Time

Point	Standard	Existing	Project	Alternative	Project + Cumulative	Alternative+ Cumulative
1	7	5	5	5	5	5
2	7	5	6	6	5	5
3	7	**9**	8	**8**	**9**	**9**
4	11	5	4	5	6	5
5	11	11	**12**	8	7	5
6	11	5	6	5	6	7
7	11	4	7	6	9	9
8	11	8	8	8	9	7
9	11	7	7	7	7	8
10	11	8	7	7	7	8
11	11	11	10	9	8	8
12	11	10	7	6	**13**	**12**
13	11	9	10	8	10	10
14	11	7	8	7	9	10
15	11	7	9	9	10	10
16	11	5	7	6	8	7
17	11	8	7	6	5	6
18	11	7	7	7	7	3
19	11	11	10	9	-	-
20	11	8	7	8	7	8
21	11	11	9	6	8	9
22	11	10	8	7	11	**12**
23	11	7	7	6	6	5
24	7	4	2	2	4	5
25	11	6	6	5	4	4
26	11	9	9	9	9	5
27	11	4	5	4	5	4

Predicted wind exceeding comfort standards are shown in **bold**.
* Denotes location exceeding the hazard criterion.

Table 2: Wind Speed Exceeded 10% of the Time (Cont.)

Point	Standard	Existing	Project	Alternative	Project + Cumulative.	Alternative + Cumulative
28	11	5	6	6	5	6
29	11	10	10	9	4	4
30	11	6	6	5	4	3
31	11	8	10	10	9	8
32	11	6	5	5	5	5
33	11	8	9	8	7	7
34	11	5	6	6	5	4
35	11	7	5	6	5	6
36	11	8	8	9	7	8
37	7	-	5	5	5	5
38	7	-	6	5	6	6
39	7	-	**8**	**8**	**12**	**14**
40	7	-	7	**8**	**8**	7
41	7	-	7	7	**11**	**9**

Predicted wind exceeding comfort standards are shown in **bold**.
* Denotes location exceeding the hazard criterion.

Existing Conditions

No violations of the wind hazard criterion were measured for existing conditions. The range of ground-level wind speeds was 4 to 11 mph. Exceedances of the comfort criteria were found at 1of the 36 measurement locations for existing conditions.

Existing + Proposed Project

No violations of the wind hazard criterion were measured. The project generally had a neutral effect on wind, with 13 points having increased wind, 13 points having decreased wind and 10 points having unchanged winds. The range of ground-level wind speeds was 2 to 12 mph. The number of ground-level locations exceeding the comfort criteria was 2 of 36.

Existing + Alternative Design

No violations of the wind hazard criterion were measured. The range of ground-level wind speeds was 2 to 10 mph. The Alternative Design generally had a positive effect on wind, with 8 points having increased wind, 17 points having decreased wind and 11 points having unchanged winds. The number of ground-level locations exceeding the comfort criterion was 1 of 36.

Existing + Proposed Project + Proposed Transbay Cumulative

No violations of the wind hazard criterion were measured. The range of ground-level wind speeds was 4 to 13 mph. This scenario resulted in 2 locations of 36 exceeding the comfort criterion.

The Full Buildout alternative of the Transbay Terminal Redevelopment Area includes a multi-story building covering measurement point 19 in what is now open space in front of the Transbay Terminal. A plaza is also being considered for that location adjacent to a roughly 400-foot tall hotel. A plaza at that location would be unaffected by development on the project site, since it is generally in an upwind direction from the project site and the two sites would be physically separated by a roughly 400-foot high hotel structure.

Existing + Alternative Design + Proposed Transbay Cumulative

No violations of the wind hazard code were measured. The range of ground-level wind speeds was 3 to 12 mph. This scenario resulted in 3 locations of 36 exceeding the comfort criteria.

The Full Buildout alternative of the Transbay Terminal Redevelopment Area includes a multi-story building covering measurement point 19 in what is now open space in front of the Transbay Terminal. A plaza is also being considered for that location adjacent to a roughly 400-foot tall hotel. A plaza at that location would be unaffected by development on the project site, since it is generally in an upwind direction from the project site and the two sites would be physically separated by a roughly 400-foot high hotel structure.

Rooftop Open Space

Winds in the newly created rooftop space (points 37-41) would meet or slightly exceed the sitting area comfort criterion of 7 MPH with either the Proposed Project or Alternative Design. Cumulative development would negatively affect parts of this rooftop space, causing some additional exceedances of the sitting area comfort criterion.

V. RECOMMENDATIONS

The rooftop area of the office tower would contain areas with winds well excess of the 7 MPH sitting area comfort criterion, particularly with cumulative development. This space should be landscaped to reduce wind and improve usability. Porous materials or structures (vegetation, hedges, screens, latticework, perforated or expanded metal) offer superior wind shelter compared to a solid surface. Outdoor sitting or eating areas will need substantial wind shelter. Wind sheltering elements should have sufficient height to shelter the area in question (wind shadows behind porous wind screens or shelter belts provide shelter a distance downwind equivalent to 3-5 times the height of the wind screen).

The project would result in winds increasing to just above the comfort criterion at Location 5 on the north side of Mission Street opposite the East Bay Terminal. It is recommended that street trees be planted along this sidewalk area. The addition of street trees along this block would be expected to reduce winds along the sidewalk on the order of 10%. A reduction of this magnitude would be sufficient eliminate the exceedance of the comfort criterion.

1. Edward Arens, Designing for an Acceptable Wind Environment, Transportation Engineering Journal, March 1981.

2. E. Jan Null, Climate of San Francisco, Report No. NOAA-TM-NWS WR-126,1978.

3.Arens, E., "Designing for Acceptable Wind Environment," Transactions Engineering Journal, ASCE 107, No. TE 2, 1981, pp. 127-141.

APPENDIX D

TRANSPORTATION

GENERAL PLAN ROADWAY CLASSIFICATIONS

The San Francisco Planning Department has developed a street hierarchy system for the City and County of San Francisco, in which the function and design of each street are consistent with the character and use of adjacent land. The major classifications in the Vehicle Circulation Plan of the San Francisco *General Plan* are:

- **Freeways:** Limited access, very high capacity facilities; primary function is to carry intercity traffic; they may, as a result of route location, also serve the secondary function of providing for travel between distant sections in the city.

- **Major Arterials:** Cross-town thoroughfares whose primary function is to link districts within the city and to distribute traffic from and to the freeways; these are routes generally of citywide significance; of varying capacity depending on the travel demand for the specific direction and adjacent land uses.

- **Transit Conflict Streets:** Streets with a primary transit function which are not classified as major arterials but experience significant conflicts with automobile traffic.

- **Secondary Arterials:** Primarily intra-district routes of varying capacity serving as collectors for the major thoroughfares; in some cases supplemental to the major arterial system.

- **Recreational Streets:** A special category of street whose major function is to provide for slow pleasure drives and cyclist and pedestrian use; more highly valued for recreational use than for traffic movement. The order of priority for these streets should be to accommodate: 1) pedestrians, hiking trails or wilderness routes, as appropriate;
- 2) cyclists; 3) equestrians; 4) automobile scenic driving. This should be slow and consistent with the topography and nature of the area.

- **Collector Streets:** Relatively low-capacity streets serving local distribution functions primarily in large, low-density areas, connecting to major and secondary arterials.

- **Local Streets:** All other streets intended for access to abutting residential and other land uses, rather than for through traffic; generally of lowest capacity.

In addition to the San Francisco Planning Department's roadway classifications, the freeways, major arterials, and transit conflict streets are included in the Congestion Management Program (CMP) Network and Metropolitan Transportation System (MTS) Network (see below).

Transit Preferential Streets

The Transit Preferential Street network classification system takes into consideration all transportation functions, and identifies the major transit routes where general traffic should be routed away from. There are two classifications of transit preferential streets: Primary Transit Streets, which are either transit-oriented or transit-important; and Secondary Transit Streets.

- **Primary Transit Street - Transit-Oriented:** Not major arterials, with either high transit ridership, a high frequency of service, or surface rail. Along these streets, the emphasis should be on moving transit vehicles, and impacts on automobile traffic should be of secondary concern.

- **Primary Transit Street - Transit-Important:** Major arterials, with either high transit ridership, high frequency of service, or surface rail. Along these streets, the goal is to improve the balance between modes of transportation, and the emphasis should be on moving people and goods, rather than on moving vehicles.

- **Secondary Transit Street:** Medium transit ridership and low-to-medium frequency of service, or medium frequency of service and low-to-medium transit ridership, or connects two or more major destinations.

In general, it is City policy that transit preferential treatments should be concentrated on the most important transit streets, and the treatments applied should respond to all transportation needs of the street. For example, on streets that are major arterials for transit and not for automobile traffic, treatments should emphasize transit priority; on streets that are major arterials for both transit and automobiles, treatments should emphasize a balance between the modes. It is also City policy that automobile facility features (such as driveways and loading docks) should be reduced, relocated or prohibited on transit preferential streets in order to avoid traffic conflicts and automobile congestion.

Citywide Pedestrian Network

The Citywide Pedestrian Network is a classification of streets throughout the City used to identify streets devoted to or primarily oriented to pedestrian use. The main classifications are:

- **Citywide Pedestrian Network Street:** An inter-neighborhood connection with "citywide significance" includes both exclusive pedestrian and pedestrian-oriented vehicular streets. These streets include the Bay, Ridge, and Coast trails, are used by commuters, tourists, general public and recreaters, and connect major institutions with transit facilities.

- **Neighborhood Network Street:** A neighborhood commercial, residential or transit street that serves pedestrians from the general vicinity. Some streets may be part of the Citywide network, but are generally oriented towards neighborhood-serving uses. Types include exclusive pedestrian and pedestrian-oriented vehicular streets. As part of the Neighborhood Network Street network, streets are classified as **Neighborhood Commercial Streets**, which are streets that are predominately commercial use with parking and loading conflicts, or **Neighborhood Network Connection Streets**, which are intra-neighborhood connection streets that connect neighborhood destinations.

In general, it is City policy that sufficient pedestrian movement space should be provided to minimize pedestrian congestion, sidewalks should be widened where intensive commercial, recreational or institutional activity is present, and efforts should be made to ensure convenient and safe pedestrian crossings at intersections.

Congestion Management Program (CMP) Network

The CMP Network is the network of freeways, state highways, major arterials and transit conflict streets (see Roadway Classifications, above) established in accordance with state Congestion Management legislation. As part of the CMP, the San Francisco County Transportation Authority is required to determine the level of service (LOS) for the CMP Network streets every two years. The LOS is based on the average travel speed for each roadway segment during both the AM and PM peak periods. The level of service standard is LOS E, except for roadway segments that operated at LOS F in 1991 (when the first study was performed). The CMP requires development of "Deficiency Plans" for any CMP-designated roadway that operate at LOS F. These plans include an analysis of the causes of the deficiency, a list of improvements that would have to be made to prevent the deficiency from occurring (including cost estimates), a list of improvements proposed as part of the plan, and an action plan for implementation of the improvements (including an implementation schedule).

Table D-1 shows the most-recently determined travel speeds and levels of service for the CMP network streets in the vicinity of the project area for the weekday PM peak period (generally 4:00 to 6:00 PM).

For the other CMP network roadway segments in the vicinity of the project site, no travel speed or level of service information is provided.

Metropolitan Transportation System (MTS) Network

The MTS Network is defined by Metropolitan Transportation Commission (MTC) as part of its Regional Transportation Plan. The MTS is a regional network of roadways, transit corridors and transfer points, identified by the MTC on the basis of specific criteria. The criteria identified facilities that provide relief to congested corridors, improve connectivity, accommodate travel demand and serve a regional transportation function. The State highways and major

thoroughfares designated in San Francisco's CMP roadway network are all included in the regional MTS network. There are a few instances in which the local CMP network is not identical to the MTS network due to differences in the criteria used to define each network.

Table D-1: Roadway Performance - Weekday PM Peak Period

Roadway Segment	Direction	Travel Speed	LOS	Year Reported
Market - Van Ness to Drumm	E	6.3	F	1995
Market - Drumm to Van Ness	W	15.5	C	1993
Mission - Embarcadero to Third	S	10.7	D	1999
Mission -Third to Embarcadero	N	5.1	F	1999
Howard - Embarcadero to Van Ness	W	13.6	C	1993
Harrison - Embarcadero to First	W	9.4	D	1999
Harrison - First to Fourth	W	20.5	B	1993
Bryant - Fourth to Embarcadero	E	13.2	C	1993
Embarcadero - N. Point to Townsend	S	16.4	C	1995
Embarcadero - Townsend to N. Point	N	16.7	C	1993
Main - Mission to Market	N	7.7	E	1999
Beale - Clay to Mission	S	13.4	C	1993
Fremont - Harrison to Market	N	16.6	C	1997
First - Market to Harrison	S	15.5	C	1993
I-80 - US 101 to Fremont	E	25.9	F	1993
I-80 - Fremont to Treasure Island	E	23.1	F	1999
I-80 - Treasure Island to Fremont	W	26.3	F	1993
I-80 - Fremont to US 101	W	21.5	F	1993

Source: Wilbur Smith Associates, San Francisco Transportation Authority - August 2001.

LEVELS OF SERVICE DEFINITIONS

Intersection operating conditions are described by Levels of Service (LOS). LOS is a qualitative description of an intersection's performance, based on the average delay per vehicle. LOS definitions are different for signalized and unsignalized intersections. Tables D-2 and D-3 provide these definitions.

Table D-2: Signalized Intersection Level of Service Definitions

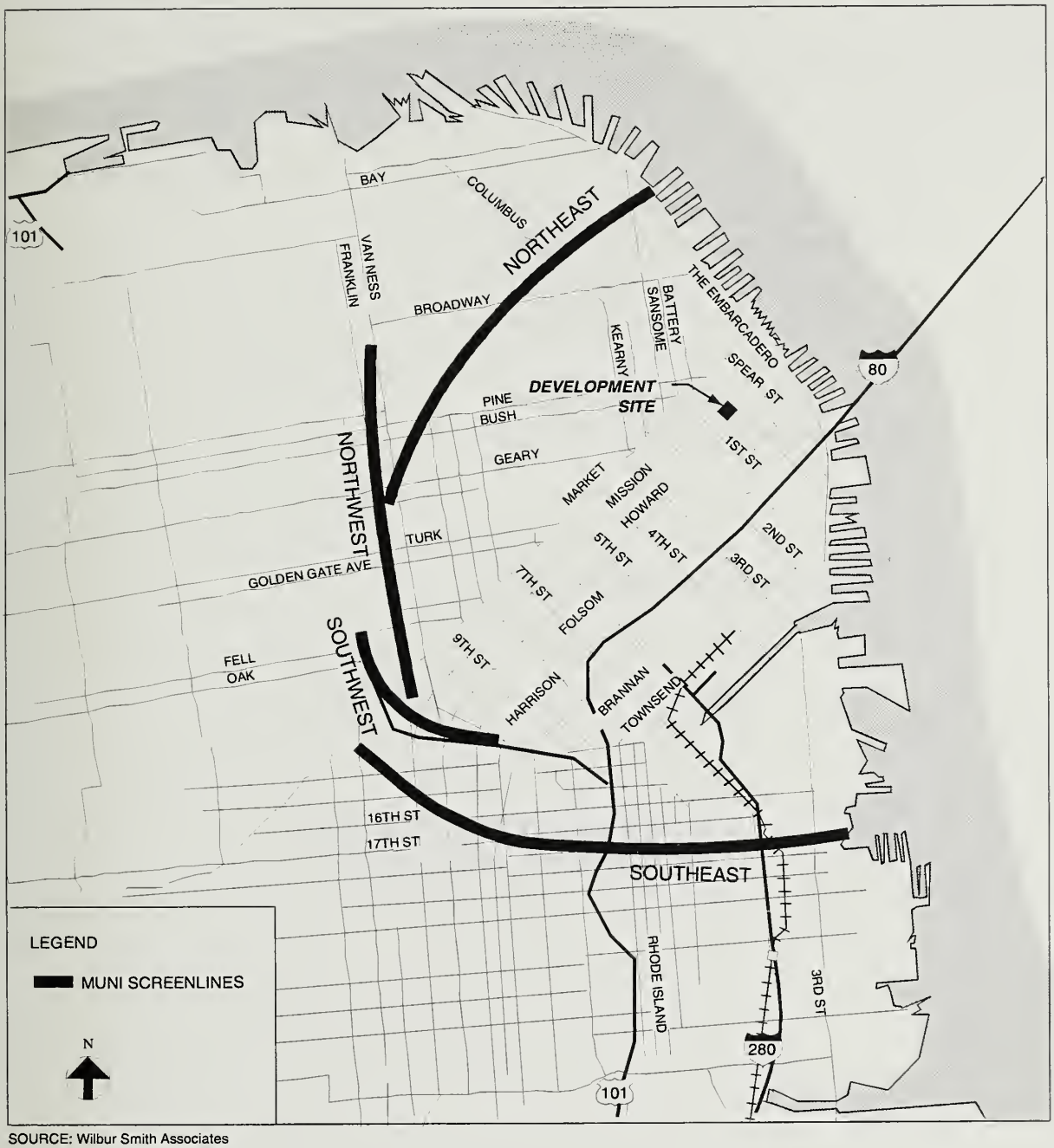
Level of Service	Stopped Delay (sec/veh)	Typical Traffic Conditions
A	<5.0	**Insignificant Delays:** Progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all.
B	5.1 - 15.0	**Minimal Delays:** Generally good progression, short cycle lengths, or both. More vehicles stop than with LOS A.
C	15.1 - 25.0	**Acceptable Delays:** Fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear, though many still pass through the intersection without stopping. Most drivers feel somewhat restricted.
D	25.1 - 40.0	**Tolerable Delays:** The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable. Queues may develop but dissipate rapidly, without excessive delays.
E	40.1 - 60.0	**Significant Delays:** Considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences. Vehicles may wait through several signal cycles and long queues of vehicles form upstream.
F	>60.0	**Excessive Delays:** Considered to be unacceptable to most drivers. Often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes to such delay levels. Queues may block upstream intersections.

Sources: Highway Capacity Manual, Special Report No. 209, 1985, 3rd edition, Transportation Research Board, Washington, D.C. (Updated 1994); Wilbur Smith Associates, 2002

Table D-3: All-Way Stop Controlled Intersection LOS Definitions

Level of Service	Average Total Delay (seconds/vehicle)
A	<5.0
B	5.1 - 10.0
C	10.1 - 20.0
D	20.1 - 30.0
E	30.1 - 45.0
F	>45.0

Sources: Highway Capacity Manual, Special Report No. 209, 1985, 3rd ed, Transportation Research Board, Washington, D.C. (Updated 1994); Transportation Research Circular 373: Interim Research Board, Washington, D.C.; Wilbur Smith Associates, 2002



8.15.02

SOURCE: Wilbur Smith Associates

FIGURE D-1: SAN FRANCISCO MUNI SCREENLINES

PLACE
POSTAGE
HERE

San Francisco Planning Department
Office of Environmental Review
1660 Mission Street, 5th Floor
San Francisco, California 94103

Attn: Carol Roos
2001.0792E-301 Mission Street Project

PLEASE CUT ALONG DOTTED LINE

RETURN REQUEST REQUIRED FOR FINAL
ENVIRONMENTAL IMPACT REPORT

REQUEST FOR FINAL ENVIRONMENTAL IMPACT REVIEW

TO: San Francisco Planning Department
Office of Environmental Review

Please send me a copy of the Final EIR

Signed: _____

Print Your Name and Address Below

_____